

THE PSYCHICAL REVIEW.

NO. 5.

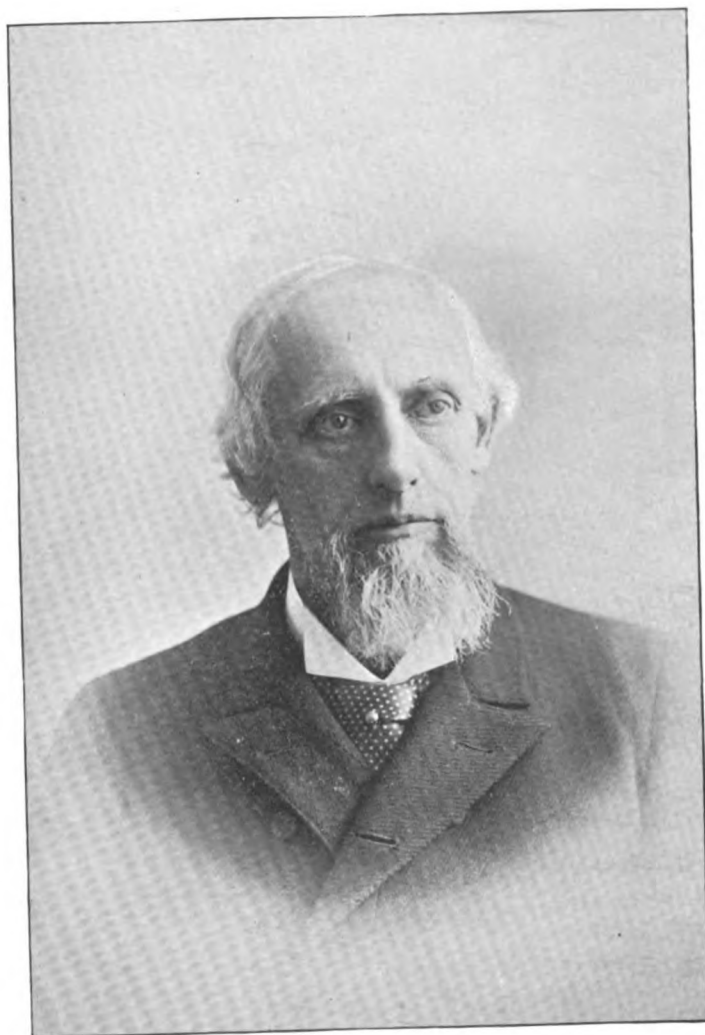
AUGUST, 1893.

IMPLICATIONS OF PHYSICAL PHENOMENA. PART III.

IN my two former articles I have shown that the relations of physical phenomena have been found by experience to hold good in the whole range of physics — such relations as properly come under the domain of what is called law, and by law I mean mathematical precision, both in the antecedents and the results. There has not been found in the whole field of physics, by any investigator of any nationality, any kind of a phenomenon which is believed to be unexplainable on the basis of the knowledge of physical science we already possess. Of course what we call explanation is merely presenting the antecedent factors of a given occurrence, both in quality and quantity, and a thing is fully explained when these are given so fully as to leave no reasonable doubt as to their sufficiency in the mind of one who is properly well acquainted with the data; but the data that enter into a given phenomenon are the very things most persons know least about; and a given explanation may be full and adequate, and yet, to some, seem to be wholly insufficient.

In these days one often hears about *specialists* — of their limited knowledge and inadequate preparation for giving a judgment in other fields than their own. So it has come to be reckoned that if a man has, by study and investigation in a given field, made himself a competent judge, so as to be considered an authority in that field, he is by so much less fitted to be heard in the settlement of some question foreign to that field; whereas some other man who is not known to have done anything in any field, may be called in for judgment, to the exclusion of the former, lest his increased knowledge in some one department should disqualify him elsewhere.

Do we not hear that biologists are incompetent judges of mental phenomena, that astronomers are not competent in bio-



PROF. A. E. DOLBEAR.

logical questions, and so on? If this distinction be true to the extent generally assumed, then philosophy itself is impossible; for if a man's opinion can be good only in a small department of knowledge, and he cannot adequately master more, how shall we ever know the relationships that constitute philosophy? The truth is, this is a one-sided affair altogether, and holds true from but one standpoint. If an astronomer propounds a chemical theory of the sun, will it be needful in any degree that the chemist who reviews the work shall have even studied astronomy or paid the slightest attention to telescopes or solar affairs? If chemical science is involved, it is for the chemist to say whether what is propounded is adequate or not. That is to say, the man who concerns himself with the constitution of the sun must so far be a chemist, but a man may be a chemist and never concern himself about the sun.

Again, if a biologist who is admittedly ignorant of chemical and physical science makes statements that plainly contradict the laws of energy as determined in chemistry and physics, and if a physicist challenges the statements, shall the latter be silenced by calling him a specialist who may be competent enough in his own field, but who knows nothing of biology? Or shall he be told that physical laws may be rigorous enough in one mass of matter, but not in another? Is it to be believed that physical laws thus play fast and loose? Here the arithmetic holds good, but there all is indefinite, and would not this be a fine example of dictation out of one's field? Physiologists tell us that ultimately every physiological problem reduces itself to one of chemistry and physics. If this be so, is it not plain that the one who treats broadly of biological problems must either be a physicist or submit his work to the criticism of a physicist? But a man may be a physicist and never trouble himself about biological questions.

If a social philosopher presents a scheme for ameliorating the evils present in society, in which scheme he plainly ignores the laws of life as determined by biologists,—as if such laws were not the very determining factors which must first be reckoned with,—shall not the biologist condemn such work? and shall he, too, be told that, however much he knows of biology, he is incompetent in sociology? Plainly, not so. But is this process a reversible one? Can the sociologist criticise the biologist's work unless he be himself a biologist, or the biologist criticise the chemist's or physicist's work unless he be so far a chemist or physicist? He certainly cannot; and this shows that there is a certain relationship among these subjects in which there is an order of dependence. In order to fully understand and explain a sociological problem, a knowledge of psychology is essential; a working knowledge of psychology requires a knowledge of biology, or the

laws of life, and no adequate knowledge of this can be had without a preparation in chemistry and physics.

In this there is nothing new, but it is generally ignored by most persons who treat on broad questions. It is plain that every kind of a question is, in the last analysis, referable to the laws of physical phenomena, and from these there is no appeal. There are not many who like this, it is true; but the test for truth is not what one likes or dislikes, but whether the proposition is in accordance with the best and most fundamental knowledge we have. Some of those fundamental truths discovered within the past fifty years, and not questioned by any one who can stand an examination on them, were given in the first article; and whoever sees, or thinks he sees, a phenomenon which he interprets in a way which plainly contradicts or ignores those laws, does not so much have a contention with any man as with science itself. If those laws are not irrefragably true, then we have no science at all, no philosophy, knowledge is scrappy, and what we call the interdependence of phenomena is a myth.

Some one, in criticising my first article, said, in substance, that some of the phenomena alleged to happen at spiritual *séances*, such as levitation of human bodies, writing between closed slates, the moving of matter without contact, and so forth, are as thoroughly proved as any of the facts of the fundamental knowledge about which I wrote. Such a statement cannot have come from any one who knows how the knowledge I spoke of was obtained, or how it may be verified by anybody who cares to take the pains. None of it depends in any degree upon anybody's dictum. If any one has doubts as to the constitution of water, he can determine it himself in half a dozen different ways. If he doubts that the earth is eight thousand miles in diameter, he can measure it in several ways. If he thinks a pound of coal does not have eleven million foot pounds of energy, he can himself try it and be satisfied. Any one can satisfy himself by himself; assistance of others is only a convenience, not a necessity, and the fundamental statements are now believed by so many because so many have tested them, and all have reached the same conclusion. Furthermore, great commercial enterprises are founded upon some of them, as when so much limestone and coal are mixed with a given ore of iron for its reduction. So I cannot admit for an instant that the things he says are true; even if they be true, that they are as thoroughly proved as the ones I stated, and they will not be so proved until each one can be verified in like manner.

There is another excellent reason for denying that they are proved in any scientific sense. All physical phenomena, so far as they have become a part of physical science, have been exam-

ined and reported upon by physicists; and both phenomena and their interpretation have been the subject of remorseless criticism, and have been adopted, if at all, on *compulsion*; their acceptance has been a matter of last resort. This is true in all departments. Why should one believe that the world turns round unless there is no other possible way to explain and account for all the facts which must be reckoned with in any explanation? The theory itself is so remote from the common experience of mankind that nobody suspected it for thousands of years, and it is not at all obvious to one who is not acquainted with phenomena out of the range of ordinary experience. The form of the earth, the aberration of light, the apparent change of latitude, and so forth, have to be considered even more than the recurrence of day and night. For most of the purposes of life it does not matter whether it turns round or not, and most men have no interest in the question further than that it accords or not with their other beliefs and feelings. But the answer to the question, "Does it turn?" is not one that can be settled by submitting it to the vote of the world. The judgment of one Galileo is worth more than that of all the rest of the world on that point. Once admit that no department of science is independent of other departments, and that no phenomenon occurs independent of relations which must be satisfied by any attempted explanation, and it follows that no explanation of an event should be adopted and be considered a part of science unless it is shown to be in agreement with what is known. Hence if an event is reported which appears to be out of relation with those established relations which there is general agreement upon, there is the best of reasons for thinking that either the event did not happen, or that it did not happen as reported, especially if the one reporting it is unacquainted with the variety of ways in which it is possible to do the same thing. If one sees a wheel turning round but does not see its connections, how can he tell whether it is turned by muscular action, or water power, or wind power, or gravity, or heat, or electricity, or magnetism, every one of which is capable of turning a wheel? Even if he can see the connections he cannot always tell what makes the wheel go without further investigation. Air and steam will make a water motor go as well as water itself, and the presence of electrical devices would not insure that the wheel was turned by electricity, and the absence of such electrical devices would not insure that it was not driven by electrical agency. Hence the testimony of witnesses only, even though they were otherwise competent, would be of little weight in deciding what made the wheel go. If the question were one of any importance it could be determined only by a competent investigator, with proper appliances and unhindered by restric-

tions of any sort. One cannot trust his sense of sight implicitly. Many persons have lost fingers because the buzz saw looked as if it was still; and it is easy with the zoetrope, and in other ways, to produce the impression of movements that are not taking place; so it might be that after all, the wheel was not turning or even that there was no wheel at all.

Admitting, for the argument's sake, that the alleged phenomena at *séances* are real occurrences and must be accounted for, there are certainly three different possible ways: —

1. By more or less skilfully devised tricks, and fraudulent only in the attempt to make others believe they are not tricks. To be certain they are not the results of manipulative skill on the part of some one, only a skilful juggler might be able to find out. It is known that hundreds have been thus imposed upon; and skilful jugglers, such as Hermann and Maskaline, who have investigated many such, declare themselves satisfied that the whole of it is trickery.

2. Suppose some of the surprising things done are not the results of conscious duplicity, then it may be, as most interested persons contend, the work of disembodied spirits who, through the agency of mediums, do apparently the most absurd and irrational things, but are never willing or able to do the simplest reasonable thing to satisfy a competent judge, who mutter no end of maudlin rubbish, add nothing of wisdom or knowledge to mankind, and justify Professor Huxley in saying that if such is the state of the dead we have another good reason against suicide.

3. There are a small number who think some of the *phenomena* to be genuine, but who attribute them, not to spirits, but to some obscure physical force not yet understood, and but little investigated. This is the attitude of Professor Crookes, and of the Milan Experimenters.

As to the class that is satisfied with the spiritistic interpretation, it may be remarked that such an explanation is in accordance with the attempts of the race to give a rational explanation of all kinds of phenomena. In the absence of proper knowledge, what seems simpler or more natural than to assume some intelligent agency as the cause of any obscure event? This it was that peopled the mountains, glens, trees, and rivers with unseen beings, watchful and interested in the affairs of men. The more ignorant, the closer was the fetich; the more enlightened, the higher these agencies retreated into the sky, useful now chiefly for literary and artistic purposes. For some reason it has always been discreditable to be without some theory for all sorts of occurrences, and even to-day, in the most enlightened communities, a man is liable to be denounced for his stupidity or his cowardice if he says, about some matters, I don't know. It is said,

however, that some of the phenomena at *séances* bear the marks of intelligence such as do not belong to natural occurrences, and that it is a fair inference that other minds than the witnesses are present. When Kepler discovered that the planets moved in elliptical orbits instead of circular ones, as had been supposed, he felt bound to give some reasonable explanation of the facts. He knew of nothing but intelligence that could maintain such motions, and he therefore supposed that each planet must have some guiding spirit. When the law of gravitation was applied, it was found that a circular orbit was the only unstable orbit in the system, and that gravity alone was sufficient to account for the order, the harmony, and all the variety of motions; so the spirits were dismissed from further duty. When a spider has a leg grow to replace one that has been lost, it has been held to be due to intelligent action superior to ordinary chemical and physical action. When a crystal of quartz is seen to replace a part accidentally lost, so as to complete its symmetry before it begins to grow elsewhere, it appears as if mind was at work here quite as much as in the other case, only in the latter most persons are content not to follow the implications, for they quickly see the philosophical rocks ahead. The real truth is that the further one pursues the causes of phenomena the more clearly does it appear unlikely that disembodied intelligence is behind any particular phenomenon.

Among all those who make up the great class of believers in the spiritualistic theory of physical phenomena, there is not a single physicist; that is, not one to whom one would go for an explanation of any complicated physical process. It is assumed that he is no better qualified to investigate *séance* phenomena than others who do not know what to expect and look out for in simpler cases, and that he is unreasonable if he does not accept the statements of untrained observers as being as good as his own observations.

It is true that he has some prepossessions. He does not believe the multiplication table should be trifled with. He knows that most things may be done in many different ways, independent of appearances. He knows a man may sometimes not perceive what is plainly before his eyes, simply because he was not looking for it. He deems it right to exhaust the possibilities of the known before summoning some unknown and hypothetical factors in any given case. He knows it to be well-nigh impossible for a man to give an entirely accurate account to-day of what occurred yesterday. He knows that a photograph is a better witness of an event, and that a stenographic report of statements made is more reliable than any man's memory. He knows that the interpretations of events by mankind have never been true

interpretations, and that the general beliefs of mankind have never been confirmed by science in any particular, and that, so far as anything has been settled, it has been decided against the opinions and judgment of mankind and its leaders. He is aware that his key has unlocked every one of the doors in Doubting Castle that have been unlocked, and therefore he believes that the implications of physical science as a whole are against any generally received interpretation of any event that has not been subjected to its scrutiny.

A. E. DOLBEAR.

Tufts College, College Hill, Mass.

SPIRITUALISM: AN INVESTIGATIVE STUDY OF ITS PHENOMENA.

HALF a score of years ago or more, I decided to write an exhaustive article on spiritualism. I had proceeded as far as an elaborate introduction, and was about to enter upon the consideration of my theme, when the fancy seized me to learn a little something about it by personal experience before proceeding further, instead of drawing my inspiration from my inner consciousness and from the opinions, not to say prejudices, of others. Such a course will seem unnecessary and uncalled for, possibly preposterous, to the professional writer, to whom actual knowledge of any given subject to be written upon is not regarded as at all necessary, and may sometimes prove a real drawback, when the view to be taken is already decided upon, either by the free will of the writer or by that absolute authority, the dictum of a publisher.

Fortunately, in the case of this article, I was my own mistress, and so I humored my whim, and, laying aside my pen, I put my carefully prepared introduction safely away, and turned investigator. For five years circumstances seemed to favor me, and I had ample opportunities to examine various phases of the so-called spiritual manifestations. What my conclusions were, I will not state in this the beginning of my essay; I will only warn the reader that if he is not prepared to admit that "there is something in these phenomena," not necessarily all they claim, but something which demands the closest and most careful attention of all candid minds—something which must have an important bearing in the scientific if not in the religious realm of thought, he will hardly find anything to interest him in these pages; for he must be shut in by an impenetrable wall of bigotry and prejudice, or else by an atmosphere of the densest ignorance, through which a ray of reason cannot penetrate.

It did not take me long to become convinced of the existence of this "something," and the next question to be considered was, What is it? If spiritualism be true, this is only the beginning of our study. If it be true, a hundred other questions start to their feet, like the Highlanders at the whistle of McGregor. Its ethnological, ethical, and religious aspects the investigator can relegate to the future; for if he study this single question relat-

ing to the truth or falsity of these strange manifestations; if he have an analytical mind, and bring all its powers to bear upon his studies and his researches, he will find that he has enough to occupy his time and attention for years without needing to go any further.

There is only one state of mind for an honest and rigid investigator — that of reverence for truth. There is only one attitude for him — that of the most rigorous scrutiny. We must take nothing for granted. Whatever evidence is not entirely flawless counts for nothing. The onus of proof is thrown upon this affirmative of spiritualism. We cannot take our evidence, and offer it to the world as evidence, at second hand. We may not individually doubt the integrity of motive or the keenness of perception of others. We may have reliance in our own judgment in judging of them, but we cannot offer this judgment as a link in an otherwise incomplete chain of evidence. We may be satisfied individually, but we must not offer our own belief as testimony. Therefore I cannot ask or expect any one to become converted to the position I now hold in regard to these phenomena, merely on the evidence which I offer here. I may only hope to so interest others to assume the *rôle* of investigators; and if they are more keen-sighted and more logical than I, and can demonstrate the incorrectness of my conclusions, showing a more rational way for accounting for these psychical phenomena, I have no bias which will prevent me acknowledging and accepting the result of their reasoning, for I am seeking truth for truth's sake.

The word "test" has diverse meanings, according to the individual who uses it. I once happened to remark to a gentleman who possessed the power of table-tipping, and who was withal a member in good standing of the M. E. church, that I seldom individually received tests. He was desirous of giving me a sitting. With him the tips did not respond to the alphabet, but only indicated "yes" by three tips, "no" by one, and uncertainty by two tips. We were seated at the table.

"Is there any spirit present who wishes to communicate with me?" Three tips. ("Yes.") "Is it my father?" "Yes." I was at a loss what next to ask. Whatever my questions were, they were most commonplace, their answers shedding no light whatever on any subject terrestrial or celestial.

"There," exclaimed the gentleman, when the sitting was concluded, with a glow of satisfaction upon his countenance, "you can never say again you do not get tests, for here you have been getting them all the evening."

It is hardly necessary to explain that this is not my ideal of a test, which, to have any scientific value, must be surrounded by a

complete chain of evidence which makes it utterly impossible to explain it in any other manner than by the super-mundane hypothesis. If my father tells me he is present, is happy, etc., these statements are not tests. If he refers to something with which he and I are familiar, and of which I am satisfied, beyond a reasonable doubt, that the medium knows nothing, that is a test of — what? Well, the test of a power beyond the ordinary known laws of nature. If he tells me something of the past of which I am ignorant, but which I afterwards verify, here again is a test of — something — what? Telepathy? That is winning at least half the battle for spiritualism. If he predicts something for the future, or tells me of matters of which no living soul is cognizant; if the prediction comes true or the information is capable of verification, then I hold that the spiritual hypothesis is proved beyond a reasonable doubt. Only an intelligence, and a super-mundane, — that is to say a spiritual, — intelligence could know these things. This is a test complete in every link of the chain of evidence, and it is by the means of such tests as these alone that victory for spiritualism must be finally and fully won.

My initial studies of psychic science were beset with difficulties. While assuming the attitude of a mere investigator, I was almost invariably declared an inharmonious element in the circles to which I was admitted, because, it was said, I disorganized the “influences” by the atmosphere of doubt and disbelief which I brought with me. I might preach a sermon here, taking this for a text, — a sermon to which a large class of professed spiritualists stand wofully in need of listening, — but I refrain. It is a significant fact that on those occasions when the mortals of the circle did not know of my doubting mind, the unseen influences never seemed to discover it.

There was only one way to pursue my investigations in a satisfactory manner, and that was to enter the penetralia of spiritualistic belief, and view the phenomena from the inside. Circumstances favored me in this. About this time I took up my abode in a city new to me. I began a regular attendance at the gatherings of the spiritualists, and was soon regarded as one of them, and invited to take part in their meetings. In accepting this state of affairs I do not feel that I was hypocritical. I had already reached the position of recognizing the “something,” and I was now only asking “what”? Moreover, I found that the more intelligent ones among them, though perhaps better grounded in the faith, were scarcely less investigators than myself. Only from this inner circle of apparent perfect belief could I have had the full opportunity for the study which I so much desired.

Let me say here that I found the honesty and candor of these

adherents of spiritualistic belief quite up to the average of the outside world; they were quite as intolerant of fraud, when known or suspected to be fraud; and if there was any deception of others, there was self-deception as well. They were, perhaps, a little too impatient with unbelievers that they did not see matters in the same light with themselves; but I think that is rather human nature, than any special and distinctive trait of the believers in the spiritualistic phenomena. They at least did not try to force their beliefs and opinions upon others, and in that matter displayed more tolerance than I have sometimes seen in orthodox quarters.

I have not space to give a detailed account of the experience of these five years. I can only take here and there a sample page from my mental note-book, regretting that I was not wise and far-seeing enough to make written memoranda of that which interested or startled me.

There are two phases of the so-called spiritual manifestations which, under my study, proved utterly abortive. These are materialization and independent slate-writing. I do not say that these are impossible. Far be it from me to make such a sweeping assertion. I only affirm that in my limited experience I found them plain, palpable, unvarnished frauds, and I not only completely lost faith in them, but also my last remaining glimmer of faith in the value of the average mortal as a competent witness. Yet I repeat that I do not go so far as to say that these personal experiences invalidate the claims of all slate-writers and materializers. The broader become my knowledge and observation, the farther do I extend the limit of the possible. Only that class of people who believe that at the bidding of Joshua the sun stood still upon Gibeon, and the moon in the valley of Ajalon, and hasted not to go down about a whole day, dare to speak with authority, and say *such* a thing can be, but such another cannot, and thus map out and circumscribe the boundaries of infinite knowledge and infinite power.

In the winter of 1884 I was one of four to stand around a small table, touching its top with the tips of our fingers, when the table was raised a foot from the floor. This was done in the full blaze of lamplight, when each could plainly perceive that no other one of us was touching it except in the light manner already described. The one man of the number who was an openly expressed disbeliever in all occult phenomena said that this movement of the table was due simply to electricity. Perhaps he was qualified to judge, as it was through some power possessed by him that the table was lifted. But if we only knew what electricity really is and how it works!

I quote from a letter, dated Feb. 15, 1893, recently received

from my daughter, an extract which describes a similar fact and announces a like conclusion:—

Two or three nights ago M. said to me, "O, mamma, let's sit with our hands on the table; I feel awful full of electricity." I noticed the paper she was working on was full of it, for it kept sticking to her book. I felt full, too, for that matter. So we sat down, and in a very little while the table began to creak and groan, and raps were heard all over it; and pretty soon we had it prancing all over the floor, jumping up and down like a horse. Part of the time we would just have our fingers on it. I believe, though, it was nothing but electricity.

Perhaps it *was* electricity: let it go at that. It will serve just as well as anything else for an explanation at present. I think I may believe that my daughter has not deceived me in the matter, since she had no motive for so doing, and the letter was a purely personal one. In this instance the raps apparently manifested no intelligence.

Let me cite another case in which the experience goes on a little farther. In June, 1883, I was living in the city of New York. One evening I was visited by a friend whom I had known almost as long, and knew quite as well, as my mother. She brought her sister, a stranger, with her. Incidentally it transpired that this sister was a rapping medium; and in a spirit of curiosity my two visitors, my daughter of fourteen, my son of twelve, and myself gathered about the table. Presently the raps came, but were faint and confused, and did not respond intelligently to our questions. After a little time the two ladies withdrew to the further side of the room, leaving my daughter, son, and myself alone at the table. It was in one of the old-fashioned houses of lower New York, built before it was deemed necessary to squeeze two buildings in barely space for one; so the room was large, and the ladies were quite a distance from the table. At once the raps became loud and distinct, and responded readily to the alphabet. They began to spell a name. The name given was the same as that of my deceased father, and I expected his name in full. Then the raps commenced with the first letter of his surname, skipping the middle name. At the second letter they ran off the track, and after the third ceased entirely. Thrice I ran the alphabet as far as W, and thrice the same three letters were given and then a silence. At last my daughter suggested, as I reached W again and paused in perplexity, "Finish the alphabet." "X—Y—Z—" a prompt, unmistakable rap at the final letter. It was the married name of a personal friend, not present—a name that was as far as possible from all our minds. The intelligence went on to say that it was a deceased brother of this friend's husband, and some message was sent—I have forgotten what—to the absent lady. Not one of us knew whether such a person had ever existed. Subsequent

inquiry verified the fact. Was it electricity, in this instance manifesting an independent intelligence, and going in knowledge beyond those present?

In March, 1882, while living in New Jersey, I contemplated a sudden journey to Florida. Partly because I did not care to have my personal affairs gossiped about, and partly to see whether the supernormal intelligences (electricity?) would show any knowledge of the matter, I said nothing to any one outside my family about a proposed trip. I came to my decision Monday, and was to set out the following Friday. On Wednesday night I attended our regular *séance*, or circle, as we preferred to call it. The medium, in this instance a man, addressed me, and said he saw me going away; said he saw lakes, surrounded by evergreen trees and bushes, and saw also a United States flag by one of the lakes. (Could this indicate that I was seeking United States land at the end of my journey?) This may have been a case of simple mind-reading. *Simple* mind-reading, I say; but is not mind-reading itself quite as difficult to understand as the spiritual hypothesis? Take away the spiritualistic alternative, and is there a single pseudo-scientist that would admit the fact of mind-reading? Undoubtedly my proposed journey was in my mind, and perhaps it was not difficult for the sensitive to apprehend my thought; though in his prophecy he went beyond my own mental operations, for I had formed no conception of a Florida lake, and did not realize how correct was his description until I stood upon the shores of one. It would be well to state that the medium had never been in Florida.

In this instance he told me something I already knew. On Sunday evening, June 11, 1882, he went further than this. He told me that some one brought a little child to me, a little girl, a mere babe. He insisted that it was for me, and that it had been before its death near and dear to me. I shook my head; I could not identify the babe. If it had been of the other sex, I might have done so. On Tuesday morning, June 13, there came a letter telling me that an infant granddaughter had died in Ohio on Sunday morning, June 11. Was this telepathy? Perhaps.

Here is a nearly parallel case. In the autumn of 1892, the daughter referred to in the beginning of this article wrote me that she had been amusing herself with an *Espirito* board, which I understand to be a new and revised edition of the old planchette. One evening she asked where her husband was and what he was doing, and expected the reply that he was in W., in western New York, whither he had gone two days before with his employer, and that he was busy taking dictations and writing letters. To her surprise the board replied that he was in the mountains fishing and hunting. She thought she had caught it.

napping for once; but the second day after, she received a letter from her husband, saying that in company with his employer he had gone to the Adirondacks directly upon their arrival at W. What accounts for this? Surely not electricity. We will call it telepathy, since we have yet the broadest latitude for its application; and where no other word serves, this will, perhaps, fit in. In the previous case there was a human intelligence at either end of the invisible line of communication; but how, with a man at one terminus only, and an insensate board with dial and pointer at the other, there was established any telepathic interchange of thought, I leave for others wiser than I in these matters to explain.

In the winter of 1883-84 I was interested in an experiment which was as curious as it was successful. A gentleman was about to pay a short visit to Boston. A medium with whom we were both personally acquainted roomed in the same house with me. The gentleman, who was an investigator like myself, said that during his absence, at certain specified hours each day, he would send a message telepathically. This medium should see if she could receive these messages and report them correctly to his wife, who should keep a record of them; while he, on his part, would keep a record as he sent them. The messages were received and recorded, as arranged; and when on his return they were compared, the messages as reported by the medium were found to be correct. There was one peculiar feature which gives additional interest to this case. The gentleman expected to arrive home about midnight, but found, when only a few miles distant, that he would be compelled to wait until morning. So he sent one more message than he had arranged for, which was received on time at 2 A. M.; his wife, in company with the medium, having sat up until that hour awaiting his return. There was this addition to the message, "He is very impatient, and can't keep himself quiet," or words to that effect. Now what power was it that used that pronoun "he"? Does the telegraph line ever burst out into independent speech like this? He did not send this as part of his message; it was volunteered by the medium of communication, whoever or whatever it was. He said that it spoke truly: that he was so restless that he kept walking about the waiting room. Whatever it was, it had intelligence enough to appreciate his state and put a brief description of it into language.

In the winter of 1885-86 I attended a dark *séance* given by Mrs. Maud Lord, now Mrs. Drake. It is seldom that any so-called communications are given to me. I usually sit on these occasions a quiet listener, and pass my judgment on the communications given others. There were twenty-two persons

present, sitting in a circle, our chairs drawn closely together, while Mrs. Lord sat in the centre, about four feet from each individual—so far from us, in fact, that she could neither reach us nor we her without a manifest effort. Near the close of the *séance* she turned to me, and said there was an old gentleman present who wished to communicate with me. After several failures I identified him as my grandfather, who had died many years before. She proceeded to detail the manner of his death, which was most peculiar. I frequently corrected her in her narrative, but in each case she maintained that she was correct and I the mistaken one. "Think the matter over," she said "and you will know that I am right." I did think the matter over, and in the end was convinced that she had been right in every particular and I the mistaken one when we differed. My grandfather had died in the first half of the present century, and was buried in an obscure village in one of the middle states. I am not going to give name, place, date, and particulars, for some other medium to tell back to me as a first-class test. And here let me say that during all these years I purposely abstained from giving any family names, or making any reference to family affairs, or speaking in any but the most indefinite way of my dead, in order to give no fraudulent medium a clue for a "test."

There was one further fact that I must record. During the entire time Mrs. Lord was talking with me, hands, as plainly felt as any mortal hands, were patting my forehead. Perhaps they were Mrs. Lord's hands, though I could hear her voice in an uninterrupted flow from the centre of the circle, at least four feet distant; and if the light had been suddenly turned on, it would have discovered me in a most ungraceful, not to say ridiculous, attitude, with one foot extended to the utmost, describing semi-circles in front of me, to prevent her by any possibility leaning over and touching me between breaths; but my foot encountered not so much as the flutter of a garment.

The whole matter of my grandfather's death had passed from my mind years before, as I was the merest child when he died; and when the details were narrated to me by this perfect stranger, it was with some little difficulty that I recalled the circumstances. This was to me a supreme "test." There is probably not in the world, outside of three or four aged members of my own family, and possibly a very few old people in the little hamlet where he died, a single person who has knowledge of the event. Whence, then, comes all this particular and correct information? Why—"unconscious cerebration." I had known the facts more than forty years before. Though I had forgotten them, they were still buried deep in my memory; and the psychic, in overhauling the mass of rubbish, the accumulation of a lifetime, that lumbers

up the chambers of my brain, had been able to detect between the right memory and the wrong one, and had thus repeated the incident to me. This explanation will do as well as any other, especially as we do not know what "unconscious cerebration" is, and it may work that way for aught we know to the contrary.

One other case of telepathy, or unconscious cerebration, or some other obscure word, and I will turn to another phase of my subject. I have already spoken of a medium lodging in the same house with me, in the winter of 1883-84. I was glad of this, for it gave me daily and hourly opportunities for my study. How much truth and how much deliberate, intentional fraud I discovered, has nothing to do with the case in point. She fell ill, and I cared for her during her sickness. One night the doctor paid his last call for the day at nine o'clock in the evening, and left her comfortable and with the prospect of passing a good night. Scarcely had he gone when she was taken with a congestive chill, and all my efforts failed to aid her. She begged for whiskey, but I had good reason for not wishing to give it to her. Moreover, her "control," the inevitable little Indian girl, steadfastly urged me to refuse her. I was at my wits' end. About ten o'clock I said to the control, "Can you go and find the doctor and bring him back?" The reply was, "I don't know; I will try." About twelve the chill passed off, and presently we were asleep. At three in the morning I heard a ring of the doorbell. Hastily slipping on a wrapper, I went down to the door, and there stood the doctor. He was looking very foolish, and his first words were, "I don't know but I have come on a fool's errand, but I felt I had to come." "It is all right," I replied; "I sent for you."

He said he had loitered about the city, talking to friends and reading the evening papers, until about midnight, when he had taken the last car to his home, three miles distant, reaching there about one. He had no sooner gained the quiet of his room than he felt a strong impulse to return to this patient. Resisting this impulse, he had gone to bed, but could not sleep for the feeling that he ought to return. At last he arose, dressed himself, and walked the three miles, along snowy roads and icy pavements, in one of the bitterest, coldest nights of the winter. To add to the difficulties of locomotion, he was already slightly lame, having on a previous occasion fallen and injured himself on a slippery pavement. I ought to say here, in order that there may be no mistake, that this was the single exceptional case when he came in the dead of night; so such nocturnal visits were not, even on rare occasions, a custom of his. The "control" explained that she had not been able to find the doctor in the city, and so had gone to his home and waited for him there.

I shall be told that telepathy explains this incident. But why was telepathy so long in getting in its work, thus bringing the physician on a fruitless errand at an hour when he was not needed? I sent for him at 10 P. M.; he did not receive the message until 1 A. M., three hours later. Perhaps, like Munchausen's horn, which froze with its music in it, to let it free when the weather moderated, my thought froze in crossing the city, and only thawed on reaching the warmth of the doctor's chamber!

Here is an incident which came to my personal knowledge, to which telepathy fails to furnish any explanation. At a *séance* a medium went from the dimly-lighted room into a dark closet she had never before entered; opened a trunk, and took from it a satchel; from the satchel took a bundle of legal documents; in the obscure light of the room unhesitatingly selected one, and, handing it to the owner of the trunk, charged her to "attend to it at once." I do not now recall the nature of the paper, for, unfortunately, I was not at that time noting down my experiences; but that is of minor importance. The document was taken to a lawyer the next morning, when it was discovered that for some reason it required immediate attention, or certain property would be jeopardized. The person who had drawn the paper, now deceased, claimed to come to set the matter right, and he alone, of all persons living or dead, knew of the necessity for this attention. Unconscious cerebration would not explain this matter, for the lady owner of the paper had taken it on faith from her lawyer, a man in whom she justly placed the highest confidence, and had filed it away without examining it. She had not known at one time and then forgotten; *she never knew*. If it was telepathy, it must have been telepathic communication between the living and the so-called dead; and that is all that is claimed for spiritualism.

I wish to say a few words in regard to psychometric readings. That the uninitiated may know the meaning of the phrase, I will explain that a sensitive takes a handkerchief, glove, letter, — anything which another has handled, — and by holding it a few moments receives impressions in regard to the character, the past and future of the individual. As wonderful as this seems, I have seen it done so many times that it is an old story to me. It proves to me that the record of our lives is written on inanimate nature, so that we may never efface it. I do not believe, as those who possess the gift seem to do, that it comes through the intermediation of spirits, but that it is an individual, personal attribute, which certain persons possess in a high degree, others only slightly, and still others not at all.

In the summer of 1885 I attended the spiritualistic camp then held at Neshaminy, a few miles distant from Philadelphia. The evening meetings were placed in my charge. During the week

we held conference meetings; but on Sunday evening, when the attendance was much larger, we usually had an address, closing with psychometric readings. One Sunday evening — I think it was August 30 — the small hall was filled. The lecture was finished, and the lady sensitive was giving her "handkerchief readings," as they were called. She had a handkerchief belonging to a lady in the audience, and gave her many details of her past life, which the lady acknowledged to be correct. Then the sensitive proceeded to tell her that she had recently lost her husband — "partner" she designated him — and spoke of her deep grief at the loss. No, the lady said, her husband was not dead, consequently she had felt no grief concerning him. "It is certainly so in the handkerchief," the sensitive maintained, and it certainly was not so out of the handkerchief, the lady persisted; and the handkerchief was passed back to its owner by the sensitive, with the remark that she did not see how she could make such a mistake. I could perceive that she felt greatly mortified at her blunder; and after the meeting was dismissed, and the audience partially dispersed, as we were standing talking of the matter, a gentleman came to us and introduced himself as a reporter of the *Philadelphia Ledger*. He told us he thought he could explain the affair to our satisfaction. He had been sufficiently interested to seek out the lady and inquire particularly about the circumstances of the case. "Did no one else handle your handkerchief?" he had asked her. "Oh, yes," she replied, "I remember now. I was talking this afternoon with Mr. —, who has recently lost his wife; and while he was telling me about it, the tears came into his eyes, and I lent him my handkerchief to wipe them away."

Here is a nut for the scientists to crack. What do you make of it, ye wise men who are never at a loss for a name to explain a thing you do not understand? Verily the scribes shall enter the kingdom before you.

I will narrate just one more occurrence, a thing trivial in itself, yet having an important bearing on the subject under discussion. And now I must enter the prisoner's dock, being no longer a mere disinterested witness, but the chief party concerned. Perhaps I am a liar; perhaps I take special delight in gulling the public. I have no way to disprove these suppositions. My testimony has, of course, no value in this instance, except as the reader may have faith in me, and will accept my word as true in every particular.

In the summer of 1886 — I think in June — I went with my daughter and a lady nearer my own age to spend a day in one of the many beautiful ravines which open into the Hudson below the city of Troy. We spent some time in gathering wild flowers,

which grew in profusion. We rambled over hillsides and through the valley, crossed the stream, climbed rocks, and skirted a wood. I had taken my scissors in my hand in order to cut the flowers, and had then forgotten to use them. I had wandered off by myself; when suddenly I heard a voice saying, "Your scissors are lost!" It did not say "my scissors," as I must have said if I had been thinking to myself. I was not even thinking of my scissors when the voice startled me, just as that of a companion would have done in saying the same thing in the same sudden way. Where I had lost them I did not know, for I had rambled over probably ten acres. I called my companions and told my loss, and we set out, each in a different direction, — they taking the well-worn paths, and I striking through the woods where the underbrush was denser. I had gone some little distance in a fruitless search, when the thought came to me: "If they" (the "they" loosely indicating the unknown intelligence) "can tell me that my scissors are lost, why can they not tell me where to find them?" I dropped at once to the ground, and put myself in the passive condition that I knew by experience I must assume in order to hear the voice again. Presently I heard it. I do not need to repeat all it said, but the substance was that if I would search carefully within a radius of four or five feet of where I was then sitting, looking the ground over and over, I should find them. I tried to search in the wilderness of grass and plants; but it was a warm day, and my near-sighted eye-glasses refused to keep right side up on my nose as I bent over. So I summoned my companions, told them I knew where to find my scissors, and asked my daughter to search for me. She looked industriously for about half a minute, then her interest began to flag. Presently she broke out, "I can't find them; they're not here; it's all nonsense, anyhow, — here they are!"

Who or what was it told me, in ten acres of hill and valley, wood and ravine, the exact place to find my scissors, and in what manner to search for them? I was not aided in my search by any remembrance of having had my scissors after the first moment of setting out on our ramble through the ravine. It was certainly a matter of very small moment whether I found my scissors or not. But it was one of the most important events of my life, the crowning lesson in the course of my psychic studies, to be thus made positive that the voices I had heard from childhood, supposing every one else heard similar ones, were objective instead of subjective, and that an outside intelligence could convey to me information which not a living person possessed.

In thus giving illustration, briefly, as I must, of the different phases of the so-called spiritual phenomena, I have omitted all

mention of prophetic vision. In no way have I received so much conclusive evidence of a power not ourselves as in this — I have had my immediate future foretold, and foretold correctly, as subsequent events proved, many times; but I cannot here narrate any of these prophecies, for two reasons — first, because it would unduly lengthen an article already too long; and second, because I could not speak of them satisfactorily without revealing more personal history than one cares to give the public. My spirit friends seemed almost invariably to leave me unnoticed; but if anything was said to me at all, it was some promise for the future — promises which, so far as I can recall them now, were always fulfilled. Neither have I spoken of inspirational writing and speaking. I have had my own experiences, but I do not care to speak about them too freely, because, while I believe there are such things, I know it is sometimes very difficult to draw the line between that which originates in one's own mind and that which is the dictation of an independent mind. Still, the fact of inspirational writing I recognized as a child, — though I did not dare to mention such a thing for fear of being ridiculed, — before the historical Rochester knockings had knocked holes in both the religion and the science of the nineteenth century.

Leaving out of the count materialization and independent slate-writing, concerning which I am in no position to give an unbiased and intelligent opinion, here we have a variety of phenomena, beginning at the crudest table-tipping, for which no intelligence may be required, and ranging upward to that which would be simply impossible if there were not more than an embodied human intelligence concerned. How are we going to account for these? Shall we take up each one by itself, and give a separate and independent explanation? I once read an article in a newspaper about the now unfashionable crazy patchwork, in which it was stated that its inventor was unknown. I think I have got on the track of him, and it is no other than the individual who essays to explain away "scientifically" the phenomena of spiritualism. When the raps first came, an attempt was made to represent them by a black patch called fraud. When it was reluctantly admitted that they were not all fraud, then a patch of another color, sometimes called magnetism, sometimes electricity, was tastefully embroidered on. Then as the manifestations multiplied, in the form of table-tipping, clairvoyance, and all the other diverse phenomena of so-called spiritualism, each old explanation was found inadequate, until we had a curious medley of causes, represented not only by fraud and magnetism, but by electricity, mesmerism, telepathy, the Odic force of Reichenbach, and "unconscious cerebration" — whatever that may be — to explain and account for something which must scientifically admit of but one explanation.

The more obscure the word, the less the constructor of the crazy quilt understands it, the more eagerly it is accepted and the more glibly it is used.

There is one feature running through all this psychic phenomena which cannot be gainsaid. There is an independent intelligence back of them all; and whether it be Odic force, or a surplus of intelligence lying around loose, which has nothing better to do than to rap on furniture, tip tables, and fabricate messages, poems, and sermons, it is at least curious that it is always consistently heterodox in its utterances. If it is electricity, we should think that orthodox people generally would fear to send telegrams or have telephone boxes in their houses, lest this independent, intelligent electricity might at any moment break out into heterodox and spiritualistic utterances.

It seems to me that these haphazard explanations are not given in quite the scientific spirit. To begin with, I will admit that there is fraud — plenty of fraud and self-delusion; but if we find one-tenth of these manifestations to be genuine (I believe there is far more than this), that one-tenth demands the earnest and honest investigation of all scientific minds, since it may and does mean something not heretofore taken account of in our plan of the universe. It is more than possible that electricity has something to do with the physical manifestations, but let us not be led into the error of mistaking a means for a cause. Electricity is a force, not an intelligence. Mind-reading, or telepathy, is fast being established as a fact. I am glad to see the scientists recognize it. Science is always, as it should be, conservative. It must move slowly, and cover the ground as it goes. Sometimes we who are quick at thinking, and are falsely accused of jumping at conclusions because we intuitively get there before the slower reasoner (intuition is, after all, but a rapid process of reasoning, the mind going over the whole ground at a flash, instead of step by step, as slower intellects must do) — we, I repeat, who have reached our conclusions long ago, sometimes think science too slow. But we are wrong in attacking science; it is the scientists, who are only human after all, and have human foibles, prejudices, and predilections like less gifted mortals. So when we see them so readily admit the newly-discovered power of telepathy, we smile quietly in our sleeves, knowing that it would be scouted as the wildest of chimeras, were it not that it affords at least a temporary entrenchment from which they can give battle, before being forced to yield the whole field, and admit that spiritualism is all that it claims to be. Telepathy is truth. It is the fundamental truth of the spiritualistic phenomena. The manifestation of intercommunication between mind and mind is what we find in the higher forms of these spiritualistic phenomena.

Unconscious cerebration is something I do not understand. How I can know something which I do not know; how my mind, which is the I, can perform labor of which I am not conscious; how there is an intelligence within me which works independently of myself, producing results beyond myself, and still be only I; — these are problems the solving of which I hesitate to attempt. To me far simpler, far more reasonable, is it to accept the explanation which these phenomena give of themselves; a simple explanation, fitting in harmoniously with all the varying manifestations, accounting consistently for them all; an explanation fully proved by evidence the tenth part of which would establish any case in any court of law — would even convict a man of liquor selling, the hardest thing to do under any prohibitory laws I know of. The evidence is consistent, absolute, cumulative, overwhelming. It is amply supported by the testimony of all the ages, and of every nation, tribe, and people that ever existed under the sun. As far as belief goes, we are not obliged to assume a new attitude. Our faces have turned toward the dawn from the first moment humanity began to have religious aspirations and a conception of a future existence. These manifestations only prove that which all but the few profess already to believe, and in rejecting them one is rejecting the only evidence possible of immortality. Solomon asks, "Who knoweth the spirit of man that goeth upward?" And unless we listen to the voices from the unseen, which reply, "We know, because we live; we still possess conscious, sentient being," we must continue to ask mournfully of one another, "Who knoweth?" and the answer must be, to the end of time, "Alas, no one!"

MRS. E. B. DUFFEY.

Bartow, Fla.

THE SCIENCE OF PSYCHOMETRY.¹ PART II.

IN my introductory statement (THE PSYCHICAL REVIEW, November, 1892) I gave the cerebral location of the psychometric faculties which, in spite of their studied avoidance and suppression by the majority of the medical profession, and by physical scientists generally, are continually coming out in human experience, to the amazement, if not disgust, of materialistic people, who have no respect for Nature when she does more than their creeds allow, and who eagerly suppress her revelations instead of following them as the miner follows the outcropping gold or its ore. The miner appreciates and loves the gold; but the scientist of the fashionable nineteenth-century pattern neither appreciates nor loves any portion of the vast store of nature's unrevealed truth which lies above the plane of his own life and his inherited opinions. Hence the anthropologist who to-day can teach psychometry, of which the colleges know nothing, is in the position of Galileo when contemporary professors either refused to look through his telescope or pronounced it a fraud; and his only advantage is that he cannot be imprisoned as well as ignored.

These remarks are not irrelevant or unnecessary; for they explain what to some very honest, sincere, and inexperienced people may seem incomprehensible — the fact, that a simple, pleasant, interesting, profound, and easily demonstrable science has been quietly before the world for fifty-one years, claiming to be and proving itself experimentally to be the most important addition ever made by any discovery to the world of science, and that during all that time it has never been tested, sought for, or even inquired about by any college or university in the world, except where the discoverer presented it personally *ex cathedra*. When a fashionable cyclopædia² was published in New York, its corps of learned editors, who knew nothing at all about it and did not wish to know, insisted on its exclusion, though it was actually smuggled in by the honest publisher.

If I have looked on *with indifference* and made no effort to rouse the dormant reasoning capacity of the colleges, it was because I soon learned that individuals need not struggle against

[The fourth edition of the author's "Manual of Psychometry" was issued recently. Copies may be obtained by addressing Dr. J. R. Buchanan, Los Angeles, Cal., or Mr. F. H. Hodges, 165 Devonshire Street, Boston. Price \$2.—ED.]

² "Johnson's Cyclopædia."

planetary destinies, and that the present stage of human evolution is not far enough from the stone age to favor the development of any science which is not upon that animal plane which is confined to the physical sciences, as fishes are restricted to the ocean. Yet I venture to affirm that, as the aquatic and reptilian ages of life were succeeded by the brilliant aerial life of birds, humanity will rise in the next century to the beauty and sublimity of psychical science.

That this science is really the most important addition ever made to human knowledge, it is my duty to show.

My first proposition is that the psychometric methods applied to the medical profession (which must occur when the colleges become slightly civilized and ethically fit to receive women — a change which I initiated in 1847) will produce the most radical and beneficial revolution that has ever occurred in the science and art of therapeutics.

The capacity for exploring the properties and therapeutic powers of any medicine by a half-hour's investigation becomes at once a substitute for the tedious, dangerous, and contradictory results of investigation by conjectural trials in hospital practice, of which our text-books furnish a mountainous mass, a considerable portion of which is so misleading as to leave therapeutics in a very unsettled state.

Hahnemann, with perhaps a faint glimmering of the psychometric idea, devised a successful method of learning therapeutic powers from the pathogenetic action of each remedy; but there was too much philosophy in this for the colleges, and it was a very laborious effort, — unnecessarily laborious and unpleasant, — to undergo pathological states to find out where a remedy strikes the hardest, when precisely the same result may be reached in half an hour pleasantly, by the psychometric method, which gives the primal hygienic and therapeutic action in due proportion, without overwhelming one with the bewildering list of symptoms which burdens the mind of the homœopath.

Success in the healing art depends on the possession of ample resources. There is no possible disease which has not its antidotes in nature; for there is no substance in all the millions of mineral, vegetable, and animal origin which is not potential when applied to man and capable of causing or curing some disease or diseases. The infinitesimal portion of the divine bounty which has been gathered into our dispensaries is utterly and shamefully inadequate to meet the innumerable conditions of disease; and poor as the collection is, it is made contemptibly, nay, horribly, inadequate by the habitual neglect of dispensatory resources, reducing medical practice to a limited and monotonous routine, so universally sanctioned that Sir Astley Cooper was

not ashamed to confess that his medical resources embraced but five remedies — a confession which to the enlightened physician conveys a hint of the dreary suffering of his patients.

It is beyond doubt with me that a twelve months' study of the *materia* by the psychometric method would make a better physician (omitting operative surgery) than any college can give us to-day, with its four or five year terms — a physician who could relieve a large number of patients whom the faculty now surrender to suffering and the grave.¹

That I have not demonstrated all this by giving the world a new *materia medica*, correcting and enlarging the old, would seem unpardonable if my time had not been occupied by other duties equally important, in which I alone could act, while this work can be and surely will be performed by others. My duties take me away from the public and from the paths that lead to contemporary fame.

To illustrate my meaning, let me refer to a few examples. *Arnica*, in the United States Dispensatory (1881), is described in thirty-one lines, giving an account of its poisonous properties, and a compiled miscellaneous list of twenty diseases (and many more) in which it has been used by physicians; the widely variant character of which destroys all confidence in its reliability, while no clear, positive statement is given of its proper use except as a domestic remedy for sprains and bruises, which is, in fact, its most common use.

Now the true character of *arnica* is clear and simple to one who understands it psychometrically. It is a powerful contra-stimulant or sedative, rivalling *aconite* and *veratrum*, capable of reducing the pulse at least as effectively as either or both, and therefore of great value in inflammations of the head or the chest, or cerebro-spinal meningitis. In pneumonia it is superior to any of the fashionable remedies, and in hypertrophy of the heart, of great value. It relieves the inflamed lungs more effectively than *veratrum*, but does not sustain so well the vital forces. It is beneficial to bruises, sprains, and all inflammatory and congestive conditions. No such clear statement as this is given in the Dispensatory; and in nearly all of the twenty odd diseases mentioned, it is inappropriate. I hope my life may be sufficiently prolonged to purify this Augean stable of medical crudities.

The best of all remedies for locomotor ataxia is a remedy the value of which is unknown to the profession — California laurel; and the most efficient remedy for gastric inflammation and yellow fever is an article never yet used — the seeds of the honey locust.

But here I must stop, as this is not a medical journal, and

¹ My classes in the College of Therapeutics are regularly trained in the psychometric study of medicines, and taught to discover their value by holding specimens in their hands.

merely add that when psychometry is applied as suggested, in the healing art, the profession will be as much admired as it is now criticised, even by its most eminent members, some of whom have lost all faith in its practical utility, because they have been so profoundly ignorant of the boundless resources of nature. Meantime I would refer my readers to the homœopaths, who, though encumbered by too much theory, are travelling on the right road, and to other liberal physicians in the college over which I formerly presided, who rejoice in the name of eclectic, and have made very important additions to medical literature.

Turning away for the present from the medical sciences, — though what I have stated is less than half the reformatory results of psychometry in therapeutics, — I would state briefly that *in all other departments of human investigation psychometry, as effectively as in medicine, illuminates and reforms*, and becomes the very sunshine of science; and I am at this time prosecuting new investigations beyond any limits man has ever supposed he could reach. While absorbed in these investigations, I cannot do much for the *propagation* of my discoveries of the last half-century, of which psychometry, though least in magnitude, is the most brilliant portion.

The beneficial applications of psychometry belong to ten distinct fields of research, in all of which it is revolutionary.

The first in which I made it useful was the investigation of character. My first experiments were in taking impressions from the living head by contact. In this method it is competent to supersede all other modes of studying man. The cranial method of the followers of Gall and Spurzheim is at best a very crude and limited affair, incomplete in its analysis of human nature, and inaccurate, also, from several errors in the doctrine.

Its reputation is sustained by phrenologists who have enough psychometric power to speak from impressions, independent of organology; no other class has any success.

It is also, in many cases, more reliable than the personal history of the individual; for the psychometric impression reveals interior qualities which have not been displayed, and purposes that have not been realized.

A competent psychometer can place his hand upon your forehead and reveal the entire inner life until you feel as if looking into a faithful mirror, and sometimes he will also disclose your past life. This is an every-day experience. Zchokke did not need to touch; but when provoked by a young man at the table, he entered into a revelation of the young man's past life, and alarmed him by telling of a criminal passage. But this power receives a vast extension when we find that we can use it without needing the presence of the party to be investigated.

This was my discovery in 1842. I had been using the faculty in those highly endowed, to investigate character in general, and to determine the functions of each particular organ of the brain. This exploration of the brain by touch is a feat of which at least one-tenth are capable, and we frequently find as many as one-fourth. My own capacity is certainly not above the average, and is, in fact, much below the average of what obtains in warm climates.

Many a doctor educated into artificial ignorance on this subject by the misrepresentations of the college could relieve himself of his dogmatic ignorance by placing a finger successively on different portions of the head and watching the impressions conveyed in a receptive condition of mind. This can be done by any one who has distinguished skill in diagnosis, for that skill is an exhibition of the psychometric faculty — a faculty which leads its possessor to a high rank in medical practice.

The vital forces of the brain are pouring out from every spot on the surface of the cranium; and in every medical or collegiate class a considerable number can be found who can interpret these functions when properly guided in the study.

What a pitiable record of human folly and stupidity it makes, when we know that nature has written her secrets on the human head so plainly that at the lowest calculation a hundred thousand in every million can read the mind; and yet while six millions in our own country and a far greater number in Europe are competent thus to solve our psychic mysteries, the medical profession, closing its eyes, goes on torturing and slaughtering animals by the hundred thousand to get a few fragments of uncertain cerebral science, and nothing of the true psychic functions of the brain. I know nothing in the history of science more culpable than this — nothing concerning which the nineteenth century will receive more of the scorn of the twentieth.

The reader will readily perceive the vast practical results which arise from a recognized and cultivated psychometry in courts of justice, where the problem of guilt or innocence, which is often too much for all our legal machinery, could be settled far more truthfully in a half-hour's psychometric investigation, and in all personal contentions leading to litigation, in which the cheap and ready methods of psychometry, when properly tried, will be found so far superior to any possible legal method, that no one would wish to avoid such a settlement, unless conscious of his own fraudulent purpose.

But to return to the independent methods, in the absence of the parties to be investigated. It was at the Astor House, in New York, in 1842, that I first tested the question whether the nervaura which passes from the brain, and which may be con-

veyed to a sensitive by a metallic rod or wire, could not also become so associated with a letter in the act of writing as to give an impression of the character of the writer similar to what we had been obtaining by contact with the head.

I took from my trunk four introductory letters written by men of very marked character, two of whom had more of courteous personal dignity and majesty of character than any other Americans I have ever met, while a third was able to rise to the head of the medical profession in America.

Placing these in the hands of my delicate psychometer, Charles Inman, brother of the great artist Inman, I asked him to give his impressions of their characters. If he had been personally acquainted with them, he could not have characterized them more appropriately and truthfully than he did. In speaking of them, he discovered a decided antagonism between one of the dignified gentlemen and the fourth individual, whose abilities were not equal to the other three. The feeling was so strong that it was unpleasant for him to hold the two letters at the same time for comparison. They were Dr. Caldwell and Dr. Flint. The former, he said, would crush the latter; he had prosecuted him, and procured his removal from the college faculty as incompetent. Then I asked him as to the probable result of a collision between the first two dignified gentlemen. He was unwilling to admit that any antagonism could possibly occur, as each had a courteous respect for the other. But when I insisted that he must state what would result from their collision, he reluctantly said that this one (the president of the board) would rebuke or check the impetuosity of the other—which had really occurred, as he had to restrain the ardor of Dr. Caldwell in urging the accusations against Dr. Flint.

The third individual, Professor Gross, he did not like, for Gross was a man of narrow mind; and when, thirty-eight years later, he stood at the head of the American Medical Association, he embodied the hereditary bigotry of the profession, by informing me, very courteously, that the association would never investigate any medical discovery that I might make, because they were governed by THE CODE and I was not.

Of course I have preserved this precious autograph as a piece of medical history, from the pen of the man who wished to revive the use of the lancet after it had been abandoned by the profession.

In the last fifty years it has been my pleasure to study psychometrically every public and private person and every historical character in whom I had any interest, and many of these portraits have been given in the "Manual of Psychometry," of which four editions have been published without the aid of booksellers

(who regularly frown on the first attempts of even the most celebrated authors).

These portraits, concise, accurate, searching, and just, were the fruit of the psychometric genius of the lady who adorned and blessed my life for ten years in New York and Boston, and who, with a disenthralled intelligence and love, now watches over its progress to that end which is the morning of a brighter day.

Under her mental vision the whole panorama of history, as well as of contemporary life, was unrolled, and I studied at my leisure the great statesmen, authors, and heroes of our own country and the stars that have long been shining in the firmament of fame.

Washington, Jackson, Napoleon, Caesar, and other heroes became familiar characters, and Demosthenes, Homer, Hypatia, Cleopatra, Aspasia, and Helen were as familiar as our contemporaries; and Moses, Elisha, Mahomet, Confucius, Krishna, Buddha, and the illustrious inspired founders of true Christianity stood clearly before our mental vision, revealing more perfect conceptions of religion than have ever been found in books.

But how, the reader may ask, can psychometry have so vast an extension as this? That remains to be told. Reader, psychometry leads us to the very arcana of the temple of divine wisdom, and opens a wider door for all mankind. Accept me as your guide in the paths with which I am familiar, and you may rejoice to realize that you have lived to the dawn of the coming illumination.

Los Angeles, Cal.

J. R. BUCHANAN.

A CORRECTED STANDPOINT.

WE are so accustomed to deal directly and almost solely with the objective, that any attempt to readjust our own end of a line of relationship is unconventional, and by many is regarded as irregular, if not unscientific. The great obstacle to the apprehension of truth is not so much in its complexity or occultism as in the lack of perception that is consequent upon predisposition, bias, authority, and even upon what is often regarded as learning itself.

Not long since a prominent clergyman whose dogmatism is most pronounced, preached from the text, "Whosoever shall not receive the kingdom of heaven as a little child, he shall not enter therein." But to whom is it more difficult to become childlike, in the reception of truth, than to one whose creed is positive, whose opinions are fixed, and to whom "revelation" is fully completed?

The dogmatism of theology is often paralleled by that of so-called science. To venture beyond the conventional limits of the regular materialistic schools or to question their traditional methods, subjects one to the charge of being eccentric, and often requires more courage than is needed for a new departure in the realm of theology. In other words, the scientist is often quite as punctilious regarding "orthodoxy" in his own domain as is the dogmatic theologian in his. To approach any subject in such a way as to get a view of its true substance and outline, often necessitates the brushing away of much subjective rubbish which unconsciously hides the very object sought. True insight is often gained only at the expense of some preliminary *unlearning*. With a proposed effort to search for truth is often linked a strong, even though unconscious, desire for evidence to confirm existing opinions. Authority, traditionalism, and unsymmetrical education are often, one or all, fatal to the openness, plasticity, and intuitive transparency which are indispensable to the discovery and reception of things which are deep and veritable. Prevailing systems of education are scholastic rather than educive. That conventional cramming of unrelated objective facts, termed learning, is the rival, if not the enemy, of a delicate and impartial inner perception through which truth comes into the conscious-

ness. The excessive intellectuality of the age, being entirely objective, has dulled and obscured the keenness of the intuitional faculty, which normally is of higher rank.

Coming to a more specific application of these principles as related to psychic investigation, it is evident that a higher point of view would greatly facilitate progress. Disregarding, therefore, not only the traditions of the regular materialistic scientists, but also the methods of many other earnest explorers, well intentioned, but almost wholly objective, I propose a brief introspective study among foundation principles.

If we look at mind and spirit from the plane of materiality, we find ourselves in a valley which lacks breadth of outlook. While practically regarding ourselves as bodies, we naturally begin to speculate whether or not it be scientifically possible for that airy, intangible something called mind to act, live, and be conscious when its physical "basis" is laid aside. Our prevailing objective materialism gives us the feeling—from careless habits of thought—that mind depends upon material organism rather than the reverse. Does body build life and mind, or do they build body for the purpose of outward and correspondential expression? Manifestly the latter. The former would logically end in pure materialism, but it is remarkable that thousands are practically thorough materialists without being aware of the fact.

The real man (ego) is mind, soul, spirit. He *is* soul, and *has* a body. Nearly all will agree to this proposition in the abstract; but as soon as they begin to reason in any direction, they unconsciously abandon their premises, and practically regard themselves as *material* beings. With daily consciousness centred exclusively upon the sensuous and objective, it becomes almost impossible, from force of habit, to maintain a correct standpoint and perspective. How greatly it would simplify all psychological research to squarely hold the position, not that we *have* souls, but that we *are* souls—yes, spirits—*now*, as much as we ever shall be. The physical organism is no part of *us*, but it is expression made visible—nothing more and no less. To be sure, it is educational, for it is in accordance with law that soul must have an experience in matter. But it is important that we educate our thought to regard the body only as an instrument belonging to the man, entirely secondary and resultant.

If soul be only a function or exercise of body, as conventional "science" and *materia medica* have practically assumed, then immortality is illogical; for when a thing perishes, its functions, which depend upon it, perish also.

The body, being but a sensuous form or plane of expression for the real man, bears a similar relation to him to that of his clothing. He is not merely its tenant, but its architect and

builder. Its construction, however, is from within through the force of mind, conscious and unconscious. Thought—mind in action—is creative. It is the universal motor and the fountain of primary causation. There are molecular changes in the “gray matter” of the brain, but they are the material correspondence or result, and not the cause of thinking.

While many physical processes take place involuntarily, or below the surface of consciousness, they are nevertheless all directed by mind. But a small part of mentality is upon the plane of consciousness. The key to the interpretation of a large part of the phenomena of hypnotism, psychology, and mental therapeutics is found in a proper discrimination between the objective and subjective mind. The latter, which is so responsive to suggestion and which so directly moulds and directs all bodily activity, till quite recently has hardly been considered.

The atom, the theoretical unit of matter, has not yet been discovered, and therefore is to this day only an intellectual abstraction; but although scalpel has never touched it nor microscope revealed it, we need not question its existence. But whatever it be, it evidently has no character or quality of its own, being entirely plastic and inert. Its use is to objectively express different grades, qualities, and operations of life, or organized mind. The same material is picked up and used in one form after another to temporarily manifest the special peculiarities of the life that is then using it, in exact correspondence. At length disintegration follows, and leaves it free to be again seized upon as before. It logically follows that life, or organized mind, is more deeply *real* than matter, and the immaterial than the material. The former is true *substance*, the latter more properly shadow. Taking the evidence of the real, intuitional self or ego against the objective or sensuous self, we conclude that reality, permanency, and solidity are terms which can only be properly applied to mind and spirit. As in the case of the apparent revolution of the sun around the earth, sensuous appearances are misleading. The world for so long a time has had its consciousness filled with forms and expressions, that it has almost become incapable of beholding the immaterial. Any faculty long unused gradually decays.

The evolutionary philosophy, from the changed standpoint, becomes simplified and intelligible. If matter be passive, and the same material be repeatedly used in integration and disintegration, it is plain that in itself it never progresses. The progression is only in the advancing qualities of organized life and mind, and these successively embody and express themselves in suitable and corresponding shapes. After full expression, each of these external correspondences dissolves and disintegrates, and the plastic

material of which it was composed is again utilized and built up anew. The matter which composes a human form to-day, may be found, a few decades hence, built up into plant or animal form, to manifest the particular quality of life which then possesses it. It is over and over again erected into living statues, sometimes of higher and again of lower plane, demonstrating that evolution is entirely and solely of the organized immaterial life, and not of its inert and passive material.

Look which way we may, we are brought back to the fact that in any deep and exhaustive sense, *reality* can only be predicated of the unseen and immaterial. Iron, steel, and gold are unreal and unsubstantial as compared with mind and spirit. Material science all through the ages has been dealing with shadows, and it has not only insisted that they were solids, but has denied solidity to everything else. The recent conclusion of science that the universal interplanetary ether has a solidity vastly greater than steel, is one of many significant hints of the coming emphasis that will everywhere be placed upon unseen entities and forces. If life and mind are the supreme realities, they, instead of matter, constitute the *substance* of things, sensuous testimony to the contrary notwithstanding. Thus, the real tree is the tree *life* rather than the matter which it now has in service. The oak-tree life picks up plastic material, but it never makes the mistake of erecting it into a birch or maple expression. The same principles hold good on the animal and human planes. Its law is uniform and universal. We find that all sequential expression is uniformly exact to the most minute detail, not only in species, but in quality amongst its own class.

Advance a step farther, and note that outward expression, assuredly when the human plane is reached, is not a mechanical but an intelligent manifestation. The embodiment is an index to the quality of past thought, for thought is a secondary creator. The biblical aphorism that, "As a man thinketh in his heart so *is he*," is not merely a moral and religious platitude, but a statement of the deepest scientific import and exactitude. That thought sequences are slow in manifestation, does not render them any less sure. When the scientific basis of mental therapeutics and suggestion, which is now but dimly apprehended by the great majority, comes into general recognition, it will be seen that the human material organism in any given instance is an exact, composite, outward index in rank and quality of past individual thinking. Such a conclusion is simply the logical outcome of the admitted proposition that *man* is soul. Prenatal or hereditary influences, which are powerful, do not disprove but rather broaden this order of causation, which is

uniformly from the within to the without — from the immaterial to the material.

This simple though unconventional spiritistic philosophy, which has only been briefly outlined, is shown to be scientific, because it accords with the highest ascertained laws; harmonizes and translates psychological phenomena, and satisfies human aspiration and intuition. It solves a thousand problems and dissipates innumerable difficulties that are met with on every hand in the great domain which has heretofore been a *terra incognita* to scientific materialism.

Planting our feet on the foundation — practical as well as theoretical — that man, the ego, even on the present plane, is soul, and soul only, many things are brought near and made distinct that have been dim and distant. It at once furnishes a broad outlook from a standpoint that cannot shift. It renders superfluous such terms as "supernatural" and even "supernormal," and enlarges the boundaries of the natural and normal beyond all limitation. It renders the human sense of *life* spiritual rather than material. It lifts man above an earthly gravitation that is burdensome and enslaving. It unfolds a consciousness in him that he is a "living soul," and not merely an animated physical organism. It discovers him as made in the "image of God"; because a *spirit*, though finited in its range, is the natural offspring of the Universal Spirit. It makes religion — not dogma, which is quite another thing — not only spiritual, but natural and scientific. It lifts order, law and inter-relationship from their material limitations, so that the whole "supernatural" realm becomes unified and systematic rather than chaotic and capricious. It interprets "death" as only the cessation of a false sense of life. It restores to man (the soul) a consciousness of his primal independence and divine sonship. It lifts him from the animal plane and bids him regard his body as his temporary and useful servant, instead of his hard and tyrannical master. It interprets pain as a friendly monitor whose real purpose and discipline is kindly, rather than as a deadly antagonist. It discloses the *divine* in man as the real man, or in other words, restores him to himself. It reconciles and brings together those two traditional antagonists, Science and Religion, which for so long have suspected and frowned upon each other. It opens to view truth as an harmonious unit, and changes general discord into harmony, even though all its vibrations may not yet be understood. In its last analysis, it does away with evil *per se* as an entity; for while admitting it as an apparent and relative *condition*, it finds in its unripened and imperfect stage the potency and promise of endless progression and unfoldment. Is this outline visionary? Not in the least, but rather

scientific in the highest and best sense of that term. The sidelights and reflections from every possible direction *here converge and come to a focus.*

All the factors discovered from this corrected point of view not only fit each other, but go far to classify and interpret all the phenomena of the human soul.

HENRY WOOD.

"The Warren," Roxbury, Mass.

SPIRITUALISTS VS. THE AMERICAN PSYCHICAL SOCIETY.

IN the February number of *THE PSYCHICAL REVIEW*, I observe a very able and earnest editorial talk, addressed principally to psychics, spiritualists, and investigators. Being one among that number, and particularly interested in the great work in which the American Psychical Society is engaged, I shall make some suggestions in answer to the editor's appeal to spiritualists generally, and "well-developed psychics, or mediums," in particular.

The editor complains that the society has not had the hearty co-operation which he felt might reasonably have been expected from this class, who are or should be so much interested in the result of the society's very laudable undertaking. He then remarks, "If anybody can tell me the reason, I shall be obliged to him." The reasons that would be given by many, if a canvass were made, have probably been anticipated. I know of no well-informed, thinking spiritualist who would dispute the proposition that "spiritualism *does* need to be investigated."

Among the eminent and learned scientists and scholars in Europe and America who have investigated spiritualism may be mentioned: Professor W. F. Barrett, Royal College of Science, Dublin; Dr. Alfred R. Wallace; Cromwell Varley; Dr. Lockhart Robertson, editor *Journal of Medical Science*; Dr. William Gregory, F. R. S. E.; Professor William Denton; Dr. Viadimer Dahl of St. Petersburg Academy of Science; Professor Robert Hare; Alexander von Humboldt; William Crookes, chemist; Professor F. Zollner; Victor Hugo; Louis Kossuth; Gerritt Smith; Abraham Lincoln; William Lloyd Garrison; Henry Wilson, ex-vice-president; Hon. N. P. Banks; Hon. Robert Dale Owen; ex-President Andrew Johnson; Mrs. Elizabeth B. Browning; Wm. M. Thackeray; Sir E. Bulwer Lytton; Epes Sargent; Dr. Grey Sexton, London; Herman Goldsmith, and thousands of others of equal prominence in literary and social life, to say nothing of the crowned heads and nobility of Europe, among whom may be mentioned Queen Victoria, Emperor Alexander of Russia, Lady Cowper, Sir Charles Napier, Lord Lindsey, Countess Cathness, Prince and Princess of Metternich,

and others. If the American Psychical Society would accept the results of the investigations made by such distinguished persons during the last twenty-five years, I have no hesitation in saying that I believe spiritualists everywhere would be glad to co-operate and assist in every way possible to develop and advance the spiritual philosophy in all its numerous and far-reaching phases, or to disprove such phases as may be found untrue.

In 1869, nearly a quarter of a century ago, an association of some thirty persons was organized in London, for the purpose of investigating spiritualism. Among them were some of the brightest and best-educated minds in the literary world of that day. They met, appointed their committees, and proceeded in a systematic way to determine the truth or falsity of spiritualism. From that day to this, that psychic society, or some other, in Europe or America, organized for the same purpose, has never ceased its investigations. And although no authorized report, either *pro* or *con*, has ever been made to my knowledge, it is reasonable to believe that some millions of converts have been made to that faith since the investigations began. Allow me to quote from a very few of these converts and adherents:—

Professor A. R. Wallace: "We are justified in taking the facts of modern spiritualism (and with them the spiritual theory as the only tenable one) as being fully established. Its whole course and history proclaims it to be neither imposture nor delusion nor survival of the beliefs of savages, but a great and all-important truth."

I. H. Fichte, a German author and philosopher: "I feel it my duty to bear testimony to the great fact of spiritualism. No one should keep silent."

Professor Challis, late professor of astronomy at Cambridge: "Either the facts must be admitted to be such as are reported, or the possibility of certifying facts, by human testimony, must be given up."

Dr. Robert Chambers: "I have for many years *known* that these phenomena are real."

Professors Tornbom and Edland, Swedish physicists: "Only those deny the reality of spirit phenomena who have never examined them, but profound study can explain them."

Dr. Lockhart Robertson: "The writer can now no more doubt the physical manifestations of so-called spiritualism than he would any other fact."

W. M. Thackeray: "It is all very well for you, who have probably never seen any spiritual manifestations, to talk as you do; but had you seen what I have seen, you would hold a different opinion."

Rev. M. J. Savage, although not a professed convert to spiritualism, says, "that he is in possession of a respectable body of facts, that he does not know how to explain except on the theory that he is dealing with some invisible intelligence."

With the volumes of evidence going to prove the genuineness of spirit communion which the investigations cited have produced, and with which the American Psychical Society is, in a general way, conversant, can it, having for its object truth and human progress, consistently longer ignore these evidences without a particle of positive proof to the contrary? My proposition is, then, that the American Psychical Society shall admit the evidence, *prima facie*, that has been produced to establish the fact of *spirit communion*, or in other words, that under certain conditions disembodied spirits or intelligences can and do communicate with mortals. With this simple platform, the work of the society would be comparatively easy, although widely extended, and its field of usefulness would be greatly enlarged. While this may seem like begging the question, there remains so much to be done, so much that is involved in spiritualism to be learned in the philosophy and science of the subject, that from the standpoint of a spiritualist, the initial step only will then have been taken. There will remain a long list of important ethical, psychical, and scientific subjects, many of which the society already have under consideration; viz., telepathy, hypnotism, hysteria, cerebral radiation, psychography, psychometry, clairaudience, clairvoyance, etc. All of these, and many more, are awaiting discussion and development, and they can best be satisfactorily handled by such an organization.

After twenty-five years of honest, earnest, scientific investigation by many of the most learned and competent scholars in this country and in Europe, if nothing has been satisfactorily established as to the continuance of life after the death of the body, you will not think me presumptuous when I question the expediency of devoting more valuable time to that object, leaving so much unlearned that comes within the purview of such men and women as constitute the membership of the American Psychical Society. It would soon become an ethical, educational society, instead of a theological psychic debating school, and would carry a benign influence to the minds of thousands of religionists, materialists and agnostics, who, owing to the influence and false teachings of dogmatic Christianity, are now living ill at ease, and in fear of death. If not immediately, I apprehend that the time cannot be long delayed when all psychical societies and honest investigators will feel constrained to yield the point I make.

St. Louis, June, 1893.

E. W. GOULD.

REPLY BY THE EDITOR.

Mr. Gould says in substance:—

"The phenomena of spiritualism have been investigated by men and women of integrity and world-wide celebrity, who have announced it to be their conviction that 'disembodied spirits or intelligences can and do communicate with mortals'; therefore, the American Psychical Society ought to concede, upon the authority of these witnesses, the truth of this claim, which is, after all, but the 'initial step' in the solution of the great problems which open before us." Now, it is not difficult to comprehend Mr. Gould's state of mind, which represents the attitude, doubtless, of thousands of spiritualists in whose minds certain things are "settled." "We have been over this ground," their thought is; "we *know* that spirits do communicate with mortals, and we do not care to begin at A and go through the primer again." What Mr. Gould asks of the society, and what he considers a simple and reasonable thing, apparently, is more complex and difficult than he thinks; nay, so difficult in the case of many persons as to be well-nigh impossible. Mr. Gould, the investigator who has satisfied himself by first-hand experiences that the basic claims of spiritualism are true, is one person; Mr. Gould, the Methodist, agnostic, materialist or what not, *before* his first experience as an investigator, which puzzled him and forced him to the conclusion, "There certainly is something in it," is quite another. To the former, *interpreting the claims* of what may be called the *élite* of spiritualism *in the light of his own experience*, it is quite natural—even though not strictly justifiable—that these testimonies should be accepted, *prima facie*, as true. To the latter, the proposal to accept them as establishing "that under certain conditions disembodied spirits or intelligences can and do communicate with mortals," would be not less astonishing than to the large sceptical party among the members of the American Psychical Society!

"What!" many spiritualists might exclaim, "I thought you held that there can be no science without authority!"

I do. But before I pin my faith to another as an authority, I must be satisfied that he is such.

"Do you affirm, then, that there are no persons who are authorities among the many able men named?"

At present I neither affirm nor deny; I simply do not know. I grant that these testimonies ought to challenge the attention of every intelligent man and woman; that they give spiritualism a standing before the bar of science. As a student who would find light for others as well as himself, I am bound to start from the most extreme sceptical position, and work gradually towards you, testing the road at every step. Some of your witnesses stand

well as authorities in other departments of thought; but from the sceptical standpoint just mentioned, as you propose to lead me into such an extraordinary field, that of the "supernatural," I cannot concede that *merely* because some of these gentlemen are authorities in other lines, they must therefore be in this; though I grant that these names impress me much more strongly than would those of obscure spiritualists of whose capacity I know nothing. The way for you to do, if you wish me to accept these gentlemen as authorities, is to bring to me the writings of one of your philosophical spiritualists, in which I shall find clearly set forth the principles which should be applied in order to decide whether a man is an authority or not. These principles must be self-evident or properly inferred from premises which I can accept as true. When you have done this, I will sift your authorities, and, if they stand the test, will then follow their thought systematically. Just at this point is where spiritualism, *as a system to be received upon authority without first-hand experience*, breaks down. Excluding the writings of a few persons — most of them non-spiritualists, which but partially cover the ground — I question whether any systematic attempts have been made to lay a rock foundation for psychical science by expounding the principles which one should apply to decide whether a person is an authority or not, and whether particular statements ought to be received as evidence or not. *Not until this work is done and the results are applied to what are claimed to be the evidences of spiritualism, can true psychical science be born.*

The spiritualist in the past has been a pioneer, ax in hand, who has pushed forth through bog and forest, blazing his way as he went. The movement of the psychical scientist must be slower and surer; he must build a highway as he goes, that others may walk in his footsteps with the greatest ease. With the former everything, practically, has been by rule of thumb, and each must submit to the usage of the school of experience. With the latter, the era of insight into psychological foundations, principles of evidence, of more accurate observations and records, and of experimentation, has come into existence, so that here at last we have the beginnings of psychical science through the beginning of the growth of authority, which will gradually become valuable as time goes on, but which to-day does not exist in a form which will permit us to grant what Mr. Gould requests.

There are spiritualists who will tell you that each person must investigate for himself, and that, therefore, it is impossible to settle the issues before us "once for all." While I question whether the time will ever come when each person may not wisely investigate for himself, nevertheless, this opinion is certainly erroneous. It may be based upon years of experience; but

the observations relate to the pre-scientific age of spiritualism, when chaos predominated, and not to the age of true psychical science.

It is not a matter of surprise to me that the great defect pointed out should have existed, and still continues to exist, in the spiritualistic movement. It was, rather, what might have been anticipated by one who had an intelligent grasp of the forces which have been operative in this country since 1848. So far from agreeing with Mr. Gould, then, that if the investigations of the last twenty-five years have failed to establish "the continuance of life after the death of the body," the expediency of devoting more time to the question is very doubtful, I maintain that there never has been a time when the world could more reasonably than to-day look forward with the hope that we may at last *know* that man does survive the shock of death. A brief review of the progress made in the study of matter will confirm what has just been said. In his recent work, "Matter, Ether and Motion," (p. 2) Professor Dolbear says: "It might seem to one as if our knowledge of matter should be tolerably good, accurate and complete, seeing that it is thrust upon us everywhere, and affects us for good or evil continuously from the dawn of sensation till death; yet it may truly be said that the knowledge of matter, its properties, and the wonderful complexity of phenomena that are due to them, which we possess to-day, was wholly unknown to all mankind until the time of Sir Isaac Newton, whose discovery of the law of gravitation was the first discovery of a universal property of matter; and by far the larger part of the knowledge we have, has been acquired in this century and mostly within the last half of it." If this be true of matter, shall we despair or doubt the expediency of further investigation, because the last twenty-five years have not settled, to the satisfaction of all, one of the greatest questions connected with the study of the more difficult realm of mind, soul, or spirit?

SUGGESTIONS AS TO PSYCHICAL RESEARCH AND "CIRCLES."

THE wide interest in the life within and beyond, which is a good feature of our day, brings together many companies of thoughtful persons seeking light touching the inner life and the innate faculties which link us to the invisible world of causes. Of the outer world of effects, and our relations to it and mastery over it, we have learned much, with more still to learn. To round out our thought and life, we would learn of "the things of the spirit," — of the faculties finer and further in their reach than the five senses which serve us so well in our relations to material and visible things.

A few suggestions, the result of forty years of thought and experience, shall be my contribution to a comprehension of our work in this opening era of psychical research. If others are stirred to say more and better, I shall be glad.

If a few persons meet together for study and converse, let them realize the importance and sacredness of the subject, and they will soon be filled with a sense of its beauty and surpassing interest. Of course healthy cheer and humor are well, but away with all ghostly gloom or shallow trifling. Meet with minds open to truth from whatever source; but drive away, and exorcise — as with "bell, book and candle" the monks drove away the devil — the fiends of flippant scepticism and foolish credulity.

A "*séance*," or "circle," is a method by which we help the development of our own psychical faculties, and the presence and power of persons from the life beyond, if such presence be possible, of which I have no doubt. To know of the life beyond, we must realize and cultivate the life within. In a *séance* we learn to discriminate between proofs of our own psychical faculties — clairvoyance, etc. — and proofs of the presence of persons from the higher life.

SIMPLE RULES.

From six to ten, or possibly twelve, persons gain the best results — more not usually so good.

Diseased or feeble or aged persons should not sit. Children are sometimes good subjects, *but it is not well for them*; their development is premature and injurious.

About half should be men, half women, sitting alternately

around a table. The joining or touching of hands, laid on the table, is helpful to a magnetic current, the psychic joining hands with the rest.

Congenial persons, agreeable to each other, should form the circle. Others, even if intelligent and good, weaken the results. A dogmatic sceptic or one too blindly credulous is a disturbing element.

Congeniality, candor, minds receptive and open to conviction of proved truth, yet capable of careful observation, are needed, and belief or disbelief is not of moment with these personal qualities.

The members of a circle should not change, and regular times for sitting should be kept up, at the same place or amidst the best surroundings and influences for ease of body and mind.

An hour is enough for a sitting. Too long exercise of psychical power is exhausting and injurious, while wisely used they benefit mind and body.

To be in the mood which the Quakers call "in the quiet" is best. Too much anxiety to hear or see some "manifestation" defeats the object sought, as the conditions are very delicate, and the elements dealt with very subtle.

Avoid loud talk or excited and violent language or action, as such word or act is *very injurious* to the psychic, or medium, who is supposed to be in the circle. Why, I know not; but the system of the psychic, while these faculties are in play, is very delicately susceptible, and painfully shocked by any violence. Even if mistake, or even deceit, is discovered, wait a little for fit time for its exposure.

Do not sit with the limbs crossed. The circle is a battery, and such a position confuses the magnetic currents.

Music at the beginning, vocal especially, sacred and uplifting hymns or refining and tender songs, help the harmonious and receptive mood.

Quiet persistence and unswerving resolve are necessary. I knew a Quaker family who sat regularly for weeks with no results, but did not think of stopping, and in the next months results greater than they hoped for came and remained for years.

Quiet sittings alone, with fit study, high thought, and true life, help interior culture, and open the pathway of the spirit, and the open vision of this bodily life, and of the life in the celestial body beyond the grave.

In these suggestions it has been supposed that a developed psychic, or medium, is in the circle; but this is not necessary, although helpful. Any fit company can sit to learn and develop such powers in any one or more of their number, and I have seen rich results attained in this way.

While it is natural that persons in earnest and filled with desire to gain knowledge, should improvise a circle, partly of strangers who may never meet again, and, while fine results sometimes follow, yet the private circle, always of the same persons and at regular times, is better for the sitters, and safer and easier for the medium.

If sitting in a circle works ill to body or mind, *stop*. But almost always, with wise arrangement, it is helpful to both, and a healthy sanity and clear judgment and insight result.

Not alone for the enjoyment of the hour, or as matter for curious study should psychical research be pursued, but in view of its far-reaching and transcendent influence. When mind can read and affect other minds far distant, when a clairvoyant, with eyes closed, can see a thousand miles as plainly as we usually see across a room, when a stranger sees and describes and gives names of those long passed from earth,—and all this, and more, has been my experience and that of many others,—we must revise our philosophy.

When Mollie Fancher, blind, and on her bed for years in Brooklyn, tells of seeing people miles away, and I ask her how, she answers, "When I think of them, my sight follows my mind; and when I stop thinking about them, all vanishes." Science fails to solve the case.

When a woman of entire integrity tells me that as she steps upon the platform to speak, she knows nothing and thinks nothing of what she is to say, but her eyes close, she is unconscious of an audience, or of what she says, and yet holds thousands under the spell of words of beauty and truth, most eloquently spoken, our fragmentary psychology fails. Writers like Herbert Spencer, who are not settled as to whether the body builds the spirit or the spirit the body, are in dim confusion.

The control of the interior and invisible over the external and visible, mind everywhere guiding and shaping matter; man as "a spirit served by a bodily organization"; the continuity of our personal existence, our escape from the terrestrial body, taking with us the celestial body, to serve us in the life beyond; the All-moving Spirit,—God, in and through and over all, come to our minds with new force and clearness.

Materialism is crude and shallow. Science is spiritualized. A godless science becomes an unscientific absurdity. Dogmatic assertions pass away, and religion is the uplifting of thought and life to diviner heights. A spiritual philosophy dominates the thought of the future. Great changes and great benefits will come with this era of the study of the life within and beyond,—the opening day of psychical research.

Detroit, Mich.

GILES B. STEBBINS.

THE PSYCHICAL EXPERIMENTS AT MILAN.

THE attention of all interested in psychical matters has been called to the experiments made last fall at Milan with an Italian peasant, Eusapia Paladino by name, in the presence of several noted scientists, of whom the great astronomer Schiaparelli enjoys, perhaps, the widest reputation.

These men, several of whom, at least, when they first began the sittings, were distinctly averse to recognizing the existence of the phenomena described below, drew up a report at the conclusion of the experiments, which they all signed, and which is given here in full. This unanimous opinion of men with the reputation which they enjoy of being scientists and careful investigators, is one of the most important contributions to psychical literature which has appeared for a long time. Professors Richet of Paris and Lombroso of Turin did not sign the report, as they were not present at enough of the sittings to confirm all of the statements therein contained. Professor Richet, however, has published his views in an article in the *Annales des Sciences Psychiques*, January, 1893, which has been published in English in the *Religio-Philosophical Journal*, April 1, 8, and 15, 1893.

A short account of the psychic herself may interest those of the readers of this magazine who may not have heard of her. Eusapia Paladino is a rather short but well-proportioned Italian woman. She is without education, and hardly knows how to read. She speaks the Neapolitan dialect in her normal state, but correct Italian when in the state of trance. She is married, but without children, and has adopted two orphans. Her husband is a carpenter, and she an ironer. Her psychical powers were discovered about sixteen years ago by Signor Damiani of Florence. She did not understand her gifts, and took a great dislike to exercising them. About eight years ago Signor Ercole Chiaia, a Neapolitan, a man of means, who has been distinguished by the king of Italy, persuaded her to take up the work again, and he has devoted much time and money to bringing her out, and calling the attention of scientists to her wonderful powers. She has never given public sittings, and receives no benefit from her performances, but, on the other hand, has gathered from them more inconveniences than advantages. She has never been detected in falsehood or in any trick. She consents to all experiments proposed to her, and admits all who may be invited to her sittings.

The official report of the sittings at Milan here given was first published in *Italia del Popolo*, Milan, Nov. 17, 1892. Part of it has been translated into English, and published in the *New York Sun*, and the *Scientific American Supplement*, March 11, 1893. Inasmuch as considerable of the most important part of the report was omitted in those publications, a complete version of it has been prepared.

OFFICIAL REPORT.

In consideration of the evidence given by Professor Cesare Lombroso, regarding the mediumistic phenomena produced by means of Signora Eusapia Paladino, the undersigned met here in Milan to hold with her a series of experiments for the purpose of verifying such phenomena, submitting her to as rigorous observation as possible. We held in all seventeen sittings, which took place in the house of Signor Finzi, Via Monte di Pietà, between the hours of nine and twelve in the evening.

The psychic, who was invited to come to these sittings by Professor Aksakow, was presented by Signor Chiaia, who was present at only a third of the sittings, and generally during the first and least important part of them.

On account of the agitation made by the press in announcing these sittings, and seeing the diverse opinions of the press in regard to Signora Eusapia and Signor Chiaia, it seems well to publish the following brief account of what we have seen and experienced.

Before entering upon the subject, however, it will be well to say at once that the results of the experiments did not always correspond to our expectations. Not that we have not had, in great abundance, facts which were apparently or really important and marvellous; but in the greater number of cases it was impossible for us to apply to the same those rules of experimental art which in other fields of experiment are considered necessary for arriving at sure and incontestable results. Among these rules, one which is most important is to vary, one by one, the circumstances of experiment in such a way as to isolate the true causes, or at least the true conditions, of every fact. Now it is precisely in this regard that our experiments seem to us only too deficient. It is true that many times the psychic, in order to prove her good faith, spontaneously offered to change certain details of the experiments, and from time to time introduced such changes of her own accord; but these were concerning circumstances which were of trifling importance according to our way of thinking. On the other hand, the changes which in our judgment seemed necessary, in order to remove every doubt, were either not accepted by the psychic, or, if they were put

into effect, resulted usually in rendering the experiment null, or at least were conducive to results which were not clear.

We do not consider ourselves as having the right to interpret this fact by injurious suppositions, which to many seems the simplest way. We think, rather, that this has to do with phenomena of an unknown nature, and confess that we do not know the necessary conditions for their production. To wish to fix or dictate such conditions according to our own ideas would, therefore, have been quite as unreasonable as it would be to insist upon making the experiment of a Torricelli barometer with a tube having a hole in the bottom of it, or to make electrical experiments in a place saturated with moisture, or experiments in photography exposing the sensitive plate to the light rather than in the camera obscura. Admitting all this (and no reasonable man can doubt it), the fact still remains that the said impossibility of varying the experiments as we wished singularly diminished the value and interest of the experiments performed, taking away, in many cases, that demonstrative rigor to which in facts of this nature we have the right and also the duty to aspire. Therefore, in many cases, ours were not true experiments, but simply observations of that which happened under given circumstances, not fixed, indeed not wished for, by us.

For that reason we will not mention those experiments which seemed to us not to be sufficiently demonstrated, and we will touch lightly upon those regarding which the conclusions could easily be diverse among the various investigators. We will note more minutely the circumstances in those where, in spite of the obstacles above mentioned, it seems to us we have arrived at a degree of certainty.

I. PHENOMENA OBSERVED IN THE LIGHT.

1. *Inexplicable mechanical movements with only direct contact with the hands.*

(a.) Lifting of a table laterally beneath the hands of the psychic seated at one of its ends.

We employed for this experiment a pine table, three feet seven inches long, two feet eight inches in height, weighing twenty pounds. Among the several movements of the table, by which answers to questions were given, it was impossible not to observe especially the motion made during the raps; two legs of the table were raised simultaneously beneath the hands of the psychic, without the slightest preceding lateral oscillation of the table, forcibly, rapidly, and several times in succession, as if the table had been glued to the psychic's hands—a motion more remarkable from the fact that the psychic was always seated at one end of the table, and we did not release her hands

and feet for an instant. As this phenomenon is produced usually with the greatest ease, to observe it better we, on the evening of October 3, left the psychic alone at the table, with both her hands above it completely, and her sleeves rolled to the elbow. We stood around the table, and the space above it and below it was brightly illuminated. Under these conditions the table raised itself to an angle of thirty or forty degrees and remained in that position several minutes, while the psychic held her legs stretched out and beat her feet one against the other. Then producing a pressure with our hands upon the raised side of the table, we felt a very considerable elastic resistance.

(b.) Measure of force applied in raising the table laterally.

For this experiment the table was suspended by one of its ends to a dynamometer attached to a rope fastened to a small beam which rested upon two wardrobes. If the end of the table was lifted to a height of six inches, the dynamometer indicated a pressure of about eight pounds. The psychic was seated at that end of the table with her hands completely above it, at the right and at the left of the point at which the dynamometer was attached. Our hands made a chain upon the table without making a pressure upon it; for that matter our hands could not in any case have acted in any way except to augment the pressure exerted upon the table. The wish was expressed that the pressure should diminish, and soon the table began to raise itself up from the side of the dynamometer. Signor Gerosa, who was watching the indicator, announced the diminutions marked by the successive indications, as seven, five, three pounds, and then nothing, after which the lifting was such that the dynamometer rested upon the table horizontally.

Then we reversed the conditions, placing our hands under the table, the psychic putting her hands not only under the edge of the table, where she would have been able to touch the framework of it and exert an action from below, but even underneath the framework uniting the legs. She did not touch this with the palms of the hands, but with the backs of them. Thus none of the hands could have done other than diminish the tension upon the dynamometer. Having expressed the wish that the tension should increase instead of diminish, very soon Signor Gerosa informed us that the indications marked an increase from eight to fifteen pounds. During the whole of the experiment both feet of the psychic were under the feet of those at the right and at the left of her.

(c.) Complete lifting of the table.

It was natural to conclude that if the table could lift itself on one side, against every law of gravity, it could also lift itself entirely. In fact this occurred. This lifting is one of the

most common phenomena with Eusapia, and permits the most satisfactory examination. It is produced usually under the following conditions. The persons seated around the table laid their hands upon it, forming a chain. Each of the psychic's hands was held by the hands of those seated next her, and each foot under the foot of her neighbor. More than that, they pressed her knees with theirs. As usual, the psychic was seated at the end of the table, the position most unfavorable to raising it mechanically. In a few moments the table made a movement laterally; it lifted itself to the right and then to the left, and finally raised itself completely, with its four legs in the air horizontally, as if floating in a liquid, to a height of from four to eight inches (at times from twenty-four to twenty-eight inches), then fell to the floor on its four legs simultaneously. Sometimes it remained in the air several seconds and made fluctuating movements, during which we could examine thoroughly the position of the feet beneath it. During the lifting of the table the right hand of the psychic often left the table, locked in that of her neighbor, and remained in the air above it. Throughout the experiment the face of the psychic was contorted, the hands contracted, she groaned and seemed to suffer, as was usually the case when a phenomenon was about to take place.

In order to examine better the facts in question, we withdrew from the table one by one, having discovered¹ that the chain of hands on the table was no longer necessary, either in this or other phenomena. Finally there was but one person left at the table with the psychic. That person rested his foot upon both Eusapia's feet, and placed one hand upon her knees. With his other hand he held the left hand of the psychic. Her right hand was laid on the table in plain sight, or even raised above it in the air while the table was elevated.

As the table remained in the air for several seconds, it was possible to take a number of photographs of the phenomenon. Up to this time this had never been done. Three photographic outfits acted at the same time in different parts of the room. The light necessary was produced by a magnesium light thrown on at the opportune moment. There were twenty-one photographs obtained, several of which were excellent. In one of them, the first one made, Professor Richet is seen holding one hand, one foot, and the knees of the psychic; her other hand is held by Professor Lombroso. The table is being raised horizontally, which is shown by the space between the extremity of each leg and the extremity of its respective shadow.

In all the preceding experiments our chief attention was turned to controlling the hands and feet of the psychic, and as regards them we feel ourselves able to say that they played no

part in the phenomena. Nevertheless, for the sake of exactness, we cannot pass over a fact which became evident to us only on the fifth of October, but which probably existed in the previous experiments also. It consists in this, that all four of the legs of the table could not be said to be entirely isolated during the raising of the table, for at least one of them came in contact with the dress of the psychic.

On that evening we noticed that, shortly before the elevation of the table, the left side of the skirt of Eusapia's gown began to puff out so that it touched the table leg. One of us having tried to prevent such contact, the table did not rise as usual, and we found that it did so only when the observer allowed such contact. This is seen in the photograph taken from that side, and also in those where the leg in question is visible in its lower extremity. It is noticeable that at the same time the hand of the psychic is placed on the surface of the table on that side, so that that part of the table was under the influence of the psychic from the lower portion by means of the gown as well as from the upper part by means of her hand. Nothing could be verified as to the degree of pressure exerted by the hand of the psychic at that moment upon the table, nor was it possible to discover, the elevation of the table being so brief, what part the simple contact of the gown (which appeared to be applied laterally) could have had in sustaining the weight of the table. We tried to avoid the contact of the gown by requiring the psychic and all others at the table to stand up, but the experiment did not succeed. We proposed putting the psychic at one of the long sides of the table, but the psychic opposed this, saying it was impossible. We are obliged, therefore, to acknowledge that we did not succeed in obtaining a complete uplifting of the table, with all four of its legs absolutely free from contact, and there is reason to fear that an analogous difficulty may have taken place in the lifting of the two legs which were on the side of the psychic.

In what manner the contact of a thin gown with a leg of a table (at the lower part of it, moreover) would be able to aid in the lifting of the table we are not able to say. The hypothesis that the gown may have hidden a solid prop, introduced to serve as a momentary support to the leg of the table, is not plausible. To maintain the entire table held up on that one leg by means of an attrition which a single hand can make applied on the upper surface of a table would require that the hand should exert an enormous pressure, such as we are not able to believe Eusapia could exert, even for three or four seconds. Of this we are convinced by attempts made by us upon the same table. The only movements of the table not subject to this cause of uncer-

tainty are those where the two legs of the table most distant from the medium are lifted; but this kind of movement is easily produced by a light pressure of the hands of the psychic on the sides of the table next her, and it is not possible to give to this the slightest demonstrative value. The same may be said of the lateral lifting of it on the legs to the right or left of the psychic, which she could produce by the pressure of even one hand.

(d.) Variation of pressure exerted by the whole body of the psychic seated upon a balance.

This experiment was very interesting, voluntary or involuntary, but very difficult, because, as can easily be understood, every movement of the psychic upon the platform of the scales would cause an oscillation of the platform and also of the steelyard. In order to have the experiment conclusive, it would be necessary that the steelyard, when it had changed position, should remain stationary for a few seconds, to permit one to suspend the weights on the steelyard for measuring. With this hope we made the attempt. The psychic was made to sit upon a chair placed upon the platform of the scales, and we found that the weight marked for both was one hundred and sixty-three pounds. After a few oscillations there occurred a decided descent of the steelyard, which lasted several seconds, and which allowed Signor Gerosa to measure the weight immediately. It indicated one hundred and thirty pounds—that is to say, a diminution of thirty-three pounds. The desire being expressed that the opposite phenomenon should occur, the extreme end of the steelyard immediately arose, indicating an augmentation of twenty-five pounds. This experiment was repeated several times and at five different sittings. Once it did not succeed, but the last time a registering apparatus enabled us to obtain two curves of the phenomenon. We tried to produce the same deflections ourselves, and were not able to produce them except by several of us standing on the platform and bearing first on one, then on the other side of it near the edge, swaying our bodies violently, a movement which we never saw in the psychic, and which was impossible in her position on the chair. Notwithstanding, we recognize that the experiment cannot be said to be absolutely satisfactory until we complete it with what will be described in 3 c.

In this experiment with the scales it was noticed also that its success seemed to depend upon the contact of the psychic's dress with the floor upon which the scales were placed. This was verified with an opposite experiment on the evening of October 9. The psychic was placed upon the scales. The one of us who was appointed to watch her feet saw the lower folds of

her dress swelling out and protruding over the edge of the platform. Whenever we tried to prevent this (which was certainly not produced by the feet of the medium), the levitation did not take place; but as soon as we permitted the hem of the dress to touch the floor, the repeated levitations took place and were marked by broad curves on the registering dial. Once we tried the levitation of the psychic, placing her upon a broad pallet, extended upon the platform. The pallet prevented the contact of the dress with the floor, and the experiment did not succeed.

Finally, on the evening of October 13, another balance was prepared, a Roman balance, with the platform isolated completely from the floor, and distant from it one foot. Carefully watching, and not permitting contact of any sort between the platform and the floor, not even by means of the hem of Eusapia's dress, the experiment failed. On the other hand, in similar circumstances, a slight result seemed to be obtained on October 18, but on that occasion the experiment was not certain, there being a chance that the mantle which Eusapia requested should be wrapped about her head and shoulders had touched the arm of the balance during the incessant agitation of the psychic. We conclude, therefore, that no levitation succeeded with us while the psychic was completely isolated from the floor.

2. *Mechanical movements with indirect contact of the psychic's hands, so arranged as to render any mechanical action by her impossible.*

(a.) Horizontal movement of the table with the psychic's hands upon a small board on three balls, or on four wheels, which were placed between the board and table.

For this difficult but conclusive experiment the feet of the table were provided with rollers. A board twelve inches wide and fifteen inches long was placed on three wooden balls about one and one half inches in diameter, which were placed on the table. The psychic was asked to put her hands on the middle of the board. Her sleeves were rolled to the elbows; those seated beside her placed their feet on her feet and their knees against hers, thus forming, with their legs and those of the psychic, two angles, in the opening of which the two legs of the table stood isolated. Under these conditions the table moved several times, forwards and backwards, to the right and left, parallel to itself, four to ten inches, together with the board which, although on the balls, appeared to be of a piece with the table. In a second experiment of the same kind, the balls, which in the former experiment easily escaped from under the board, were replaced by four movable wheels fastened to the four corners of the board, which gave greater stability without making the movements more difficult. The results were the same as before.

(b.) Lateral raising of the table with a board on three balls, or four wheels, interposed between it and the psychic's hands.

This phenomenon, obtained in the first experiment, was repeated with the board on wheels under the conditions stated above. The table rose laterally on the side of the psychic and under her hand, together with the board on the balls or wheels, to a height of four to six inches, without any displacement of the board, and fell again with it. By these experiments, irrefutable proof was obtained that lateral and vertical movements of the table can take place independently of any force whatsoever from the hands of the psychic. In these experiments, the control was limited to that of the hands and feet of the psychic, and as the table was surrounded by several persons, there was no opportunity of seeing whether there was any contact of the legs of the table with the psychic's skirt, which in the other experiments was found to be a necessary condition of success. The same observation is applicable to the experiment described below in 3 b. To remove every trace of doubt in this respect, a covering of pasteboard was prepared which enveloped the psychic and her chair, in the form of a vertical cylinder, and prevented any external contact with the floor up to a height of about two feet. As soon as the psychic saw this, however, she declared that standing in it would take away all her power, and we were therefore forced to give it up. We made use of it a single time, but under circumstances which rendered its use of no particular value.

3. *Movement of objects at a distance without any contact with the persons present.*

(a.) Spontaneous movements of objects.

These phenomena were observed on several occasions during the sittings. Often a chair placed for this purpose, not far from the table, between the psychic and her neighbor, began to move and approached the table. A remarkable instance occurred during the second sitting. This took place in full light. A chair weighing twenty-five pounds, which was at a distance of a yard behind the psychic, approached Signor Schiaparelli, who was sitting near the psychic. He arose and put it back in its former place, but when he was seated again the chair came up to him a second time.

(b.) Movement of the table without contact.

It was desirable to obtain this phenomenon experimentally. For this purpose the table was placed on rollers, the feet of the medium were controlled as stated in 2 a, and all present made a chain of hands, including those of the psychic. When the table began to move, all raised their hands without breaking the chain, and the table alone by itself made several movements as in the second experiment. This experiment was repeated several times.

(c.) Movement of the steelyard of the scales.

After having noted the influence that the body of the psychic exerted upon the scales while seated on it, it was interesting to see if this could be effected while she was at a distance. To that end the scales were placed behind the back of the psychic, seated at the table, in such a way that the platform came to within about four inches of her chair. First we placed the hem of her dress in contact with the platform. The steelyard began to move. Professor Brofferio got down upon the floor and held the hem of the dress with his hand, but ascertaining that there was not the least tension, he resumed his seat. The movement of the balance continuing with much force, Professor Aksakow got down upon the floor behind the psychic, took the dress away entirely from the platform, and assured himself with his hands that there was nothing between the platform and her chair, nevertheless the steelyard continued to beat violently against the restraining crosspieces. This we all saw and heard.

A second time the same experiment was performed, at the sitting of September 26, in the presence of Professor Richet. In a few minutes the steelyard began to move in full view of all, and was beating violently against the bars, whereupon Professor Richet immediately left his place near the psychic and assured himself by passing his hand in the air and on the floor between the psychic and the platform that all that space was free from any communication either by a thread or any other contrivance.

4. *Raps and reproductions of sounds in the table.*

These raps were always produced during the sittings to signify "Yes" or "No." Sometimes they were loud and distinct and seemed to resound in the wood of the table; but, as is well known, it is very difficult to localize a sound, and we could not try any experiments in this direction, except by making rhythmical raps and various rubbing sounds on the table, which seemed to be faintly reproduced inside of the table.

II. PHENOMENA OBSERVED IN COMPLETE DARKNESS.

The phenomena observed in complete darkness were produced while all were sitting around the table making a chain (at least during the first few minutes). In this condition of things the most various and singular phenomena began immediately to be presented, which in full light we might wish for in vain. Darkness manifestly facilitated these manifestations, which may be classified as follows:—

1. *Raps on the table much louder than those which were heard inside or beneath the table when it was light. The sound of the loudest was as if a heavy blow with the fist or slap with the hand had been given on the table.*

2. *Knocks and blows given to the chairs of those near the psychic, sometimes violent enough to move the chair with the person sitting in it. Sometimes, if the person arose, the chair was taken away.*

3. *Transportation of various objects on to the table, as chairs, clothing, etc., sometimes from a distance of several yards, and weighing several pounds.*

4. *Flying through the air of different objects, such as instruments of music; percussion and sounding of the same.*

5. *Elevation upon the table of the body of the psychic, together with the chair in which she was seated.*

6. *Apparition of phosphorescent torches of brief duration (a fraction of a second), and of sparks or luminous disks, some millimetres in diameter, which sometimes unfolded.*

7. *The sound of two hands clapping together in the air.*

8. *Gusts of air sensibly felt, like light wind localized in a small space.*

9. *Contact of a mysterious hand, either upon the portions of our bodies which were covered, or on the uncovered portions, such as the hands and face, in which case one experiences precisely the sensation of touch and warmth which a human hand produces.*

10. *Appearance of one and even two hands projected against a phosphorescent background or upon a window slightly illuminated.*

11. *Diverse things done by such hands, such as the tying and untying of knots, pencil marks (apparently) left by the same on sheets of paper and in other places, and impressions of such hands on sheets of blackened paper.*

12. *Contact of our hands with a mysterious face, which certainly was not that of the psychic.*

Those who deny the possibility of psycho-physical phenomena usually explain these facts by the supposition that the psychic has the faculty (declared impossible upon the competent authority of Professor Richet) of seeing in the complete obscurity in which we performed these experiments, and that by artifice she succeeds in making both persons guarding her hold the same hand, thus liberating the other to produce the contact. Those of us who had custody of Eusapia's hands are obliged to confess that she did not conduct herself in a manner to facilitate our work. When an important manifestation was about to take place she began to move about with her whole person, pulling herself away and trying to liberate her hands, especially the right hand, as if from a contaminating touch. In order to maintain control, those holding her were obliged to follow every movement of the hand which tried to escape, and repeatedly, for an instant, the contact of her hand was lost exactly at the moment in which it was

most desirable that it should have been maintained. Neither was it always easy to assure ourselves whether it was the right hand of the psychic which we held or the left one. For that reason many of the numerous manifestations observed in darkness were considered by us of insufficient demonstrative value, while yet being intrinsically probable. We make no report of such experiments, giving only cases where it was not possible to have the least doubt.

(a.) The bringing of distinct objects while the hands of the psychic were tied to the hands of her neighbors.

In order to be assured that we were not victims of an illusion, we tied the hands of the psychic to those of her neighbors by means of a single small string, so that the movements of the four hands would be controlled by each other.

The length of the string between the two hands of the psychic was eight to twelve inches, and between each of her hands and those of her neighbor, four inches. This space was left in order that the two hands of the neighbors could easily hold the psychic's hands in the convulsive movements which agitated her. The connection was made as follows: The string was wound three times around each of the psychic's wrists, almost tightly enough to hurt her, and then tied in a square knot. This was done so that if by any trick the hand could be freed from the string, the three coils would fall together at once, and the hand could not be put back and make the original connection.

A bell was placed on a chair behind the psychic. The circle was made, and, furthermore, the hands of the psychic were held as usual, also her feet. The room was darkened, and immediately upon expressing the desire that the bell should be sounded, we heard the chair move, describe a circle on the floor, and come up to the table, upon which it was soon placed. The bell sounded, and was then thrown down upon the table. A light was immediately struck, and it was seen that the knots were in perfect order. It is clear that the bringing of the chair could not have been produced by any action of the psychic's hands in this experiment, which lasted in all only ten minutes.

(b.) Imprint of fingers made on smoked paper.

In order to be assured that we had to do with a hand, we fastened on the table on the side opposite to the psychic a sheet of paper blackened with soot, and expressed the desire that the hand should leave an impression, while the hand of the psychic should remain unsoiled, and that the soot should be transferred to one of our hands. The hands of the psychic were held by those of Signor Schiaparelli and Dr. Du Prel. As soon as the circle was made and the room darkened, we heard a hand tapping lightly on the table, and soon Dr. Du Prel announced that

he felt finger-strokes on his left hand, which was held on Signor Finzi's right hand. Upon striking a light we found several finger marks on the paper, and the back of Dr. Du Prel's hand was black with soot, while the fingers of the psychic, examined at once, showed no trace of black. This experiment was repeated three times, and we insisted on having a complete impression. On the second sheet there were marks of five fingers, and on the third, the impression of nearly the whole of a left hand. After this the back of Dr. Du Prel's hand was blackened all over, while the psychic's hands remained wholly clean.

(c.) Apparitions of hands on a slightly luminous background.

We placed on the table a sheet of paper covered with a phosphorescent substance (calcium sulphide), and we placed other similar sheets on the chairs in various parts of the room. In this way, we saw very clearly the back profile of a hand lying on the paper on the table. The hand projected in black was seen to pass and repass around us on the background formed by the other sheets of paper.

The evening of September 21, one of us saw several times, not one but two hands simultaneously projected on the dimly-lighted window without shutters—it was night, but not absolutely dark outdoors. These hands were rapidly agitated, but not so much so but that we could clearly distinguish their outlines. They were completely opaque, and were projected on the window absolutely black. It was impossible for the observer to judge anything about the arms to which these hands were attached, because only a small part of these arms, near the wrist, was opposite the dim light of the window in the room where we were making the observations.

These phenomena where two hands are visible at the same time are very significant, because they cannot be explained on the theory of any trickery on the part of the psychic, who could in no way get more than one of her hands away from the control of her neighbors. The same conclusion is forced upon us by the clapping of two hands, one against the other, which was heard in the air several times during our experiments.

(d.) Elevation of the psychic upon the table.

We consider this elevation, which took place on two occasions, on September 28 and October 3, among the most important and significant facts. The psychic was seated at one end of the table complaining loudly, as if in pain, when she was lifted bodily with her chair and placed upon the table in exactly the same position as before, and during the whole of the time her hands were held, and accompanied by the hands of those holding them. On the evening of September 28, while the psychic's hands were being held by Professor Richet and Professor Lombroso, she

complained of two hands grasping her under the arms; then in trance, and in a changed voice, habitual to her in that state, she said, "Now I shall lift my psychic up on the table." After two or three seconds the chair with the psychic seated in it was lifted—not thrown violently, but raised up gently—and placed upon the table, and M. Richet and Signor Lombroso are sure that they did not assist in raising her in any way.

After a discourse in a state of trance the psychic announced her descent, and Signor Finzi having been substituted for Professor Lombroso, she was deposited upon the floor again, with the same ease and precision, while both gentlemen, M. Richet and Signor Finzi, accompanied the movement without in any way assisting it. They observed the motion of her body and hands, and assured themselves as to the position of the hands. During the descent both of them felt repeatedly a hand which touched them gently on the head. On October 3, the same phenomenon was repeated in analogous circumstances, Dr. Du Prel and Signor Finzi holding her.

(c.) Contact.

Several cases of contact deserve especial notice, because of certain circumstances capable of giving a clew to their possible origin. First of all should be mentioned contact which was felt by persons out of reach of the hands of the psychic. Thus, on the evening of October 6, Signor Gerosa, who was seated three places away from the psychic (about one yard and a half), she being at one end of the table and Signor Gerosa at the other, having raised his hand to be touched, felt several times a hand seize his to put it down. Persisting in raising his hand, he was struck violently by a trumpet, which was previously sounded in the air.

In the second place should be noted contacts constituting a delicate operation, ordinarily impossible to be performed in darkness with the precision with which they were accomplished. On two occasions, September 16 and 21, Signor Schiaparelli had his spectacles taken off and placed upon the table before another person. These spectacles are fastened over the ears by means of two elastic springs, and it requires considerable attention to remove them even in the light. Nevertheless, they were removed in complete obscurity with such delicacy and rapidity that Signor Schiaparelli only became aware of it through noticing that the sensation caused by the contact of spectacles with the nose, sides of the head, and ears, had ceased, and he was obliged to feel with his hands to be sure they were really not in their usual place.

Analogous impressions were derived from many other contacts made with great delicacy, for example, when one of those present

felt his hair and beard smoothed. In all the numerous manoeuvres executed by mysterious hands, not a single mistake or a blow was noticed, which is inevitable in ordinary cases for any one operating in the dark. The darkness was in most cases (save one or two exceptions already noticed) as complete as possible. And it was not imaginable that the psychic or any one else could see, even approximately, the profiles of the persons seated around the table.

It may be added that bodies as heavy and voluminous as chairs and bowls full of clay were placed upon the table without these objects ever encountering any one of the many hands which were laid upon the table; this was especially difficult as the chairs were large enough to occupy the most part of the table. Once a chair was upset on the table and placed in a longitudinal position without touching any one, although this chair occupied nearly the whole table.

(f.) Contact of a human face.

One of us having expressed a desire to be kissed, felt before his mouth the quick sound of a kiss, unaccompanied, however, by the contact of lips. This happened on two occasions. On three occasions it occurred to one of those present to touch a human face having hair and a beard. The feeling of the flesh was precisely like that of a living man's face. The hair was much coarser than that of the psychic and bristly. On the other hand, the beard seemed to be very fine.

(g.) Sound of a trumpet.

On the evening of October 6, when a trumpet had been placed behind the psychic and behind the curtain, we at once heard several notes from it back of our heads. Those who were next to the psychic were in a position to be assured that the sound certainly did not come from her. The trumpet was found transported to a part of the table opposite to the psychic.

(h.) Zöllner's experiments on the penetration of one solid through another.

The celebrated experiments are well known by which the astronomer Zöllner tried to give a proof of the real existence of a fourth dimension of space. Although we know very well that, according to the opinion of many, Zöllner may have been the victim of a mystification, we thought it important to try a number of his experiments. If but one of them had succeeded, under proper precautions, it would have repaid amply the trouble, and would have given a manifest proof of the reality of psychical facts. We tried three of his experiments — namely, the linking of two solid rings, of wood or pasteboard, previously separate; the formation of a simple knot in a cord without an end; the penetration of a solid object from the outside to the inside of a locked

box, the key of the same to be in the custody of a trustworthy person. None of them succeeded.

Neither did another experiment succeed which would have been equally conclusive — that of modelling the mysterious hand in melted paraffine.

A single fact, which, if authentic, might be considered as belonging to this class of phenomena, happened at the sitting of September 21, but unfortunately without our being forewarned, so that during the phenomenon that vigorous and continual control, which in this case is more than necessary, was wanting. At the beginning of the sitting one of us had placed his overcoat on a chair out of the reach of the psychic. At the end of the sitting, various objects were seen carried over a phosphorescent paper lying on the table, which the owner of the coat at once recognized as some things that were in an inside pocket of the said coat; then the psychic began to lament and to complain of something which had been placed around her neck and was pressing her.

When a light was struck the coat could not be found in its former place; but on turning our attention to the psychic, who seemed to be dazed, we noticed that she had the coat on her back with one of her arms in each sleeve. During the sitting, the psychic's hands and feet had been controlled by her neighbors in the usual way.

It is easily understood, how here more than on any other occasion, faith in the occurrence of such an extreme phenomenon rests wholly on the assurance that the control of the two hands had been continuous. Now as the phenomenon had been unexpected, the attention of those next to the psychic could not have been incessantly upon this control. These two experimenters could declare that it did not seem to them that they had let go of the respective hands of the psychic; but not having always kept their attention exclusively fixed upon this point, through the many other distractions produced by the phenomena which had happened, they must admit the possibility, though not the probability, that they had dropped the psychic's hand for a moment without noticing it.

III. PHENOMENA WHICH PREVIOUSLY HAD OCCURRED ONLY IN DARKNESS OBTAINED IN THE LIGHT WITH THE PSYCHIC IN FULL SIGHT.

In order to arrive at a full conviction it only remained to obtain the most important phenomena which had taken place in darkness, in such a way that we should not lose sight of the psychic. As darkness is so favorable, as it seems, to the pro-

duction of such phenomena, it was best to arrange the light in such a way that a small portion of the room should be in darkness, while we and the psychic should be illuminated. Accordingly, on the evening of October 6, we proceeded in the following manner: One part of the room was separated from the rest by means of a divided curtain in order to leave one portion in darkness, and the psychic was seated in a chair before the place of division, her arms, hands, face, and feet being in the lighted portion of the room. Behind the curtain a small chair was placed, with a bell, at a distance of about twenty inches from the psychic, and upon another chair, further away, was placed a basin filled with damp clay having a perfectly smooth surface.

In the lighted portion of the room we formed a circle around a table in front of the psychic. Her hands during the time were held by those seated next to her, Signor Schiaparelli and Dr. Du Prel. The room was lighted by a lantern with a red glass, placed upon another table. It was the first time that the psychic had ever been subjected to this test.

Soon the phenomena began. By the light of a candle, not having a red glass over it, we saw the curtain puff out toward us. Those near the psychic, placing their hands upon the curtain, felt resistance to their touch. The chair of one of them was pulled violently; then five loud raps were heard on it, which is the number signifying a request for less light. At this we put out the candle and lighted the lantern instead. It was covered partly with a shade, but soon afterwards we were able to remove the shade, and, indeed, we placed the lantern on the table in front of the psychic.

The edges of the opening of the curtain were fastened to the corners of the table, and folded and pinned over the head of the psychic, according to her request. Professor Aksakow, rising, placed his hand within the opening of the curtain, above the head of the psychic, and informed us soon that he felt his hand touched repeatedly by fingers. Then his hand was seized and pulled inside of the curtain, and he felt that something was pushed into his hand; it was the small chair. Then the chair was taken from him and fell upon the floor.

All those present placed their hands within the opening, and felt the touch of hands. In the dark opening above the psychic's head bluish sparks appeared again and again.

Signor Schiaparelli was struck forcibly through the curtain on the back and side; his head was covered by the curtain and pulled inside into the darkness, while his left hand was holding the hand of the psychic and his right hand was still held by Signor Finzi. In this position he felt the touch of warm, damp fingers, and saw the sparks describing curves in the air and

partially lighting up the hand or the body bearing them. Then he resumed his former position, when a hand appeared quite distinctly at the opening. The psychic, never having seen this before, lifted her head to look at it, and soon the hand began touching her face. Dr. Du Prel, without releasing the hand of the psychic, put his head within the curtain above the head of the psychic, and immediately felt his hand touched in several places by fingers. Between his head and that of the psychic the hand was still seen.

Dr. Du Prel resumed his place at the table, and Professor Aksakow placed a pencil at the aperture. The pencil was taken by the hand, and soon afterwards was thrown out through the curtain upon the table. Once a closed fist appeared upon the head of the psychic; it opened slowly and showed us the palm with the fingers separated.

It is impossible to tell the number of times that this hand appeared and was touched by us; it is enough to say that doubt was no longer possible; it was really a human hand that we saw and touched, while the body and arms of the psychic remained in sight, and her hands were held by those next her.

After the sitting, Dr. Du Prel was the first to pass into the darkened space, and he announced that there was an impression in the clay. We found in it a deep mark of five fingers of a right hand. This was a lasting proof that we had been the victims of no hallucination.

These facts were repeated several times, either in the same or slightly different form, on the evenings of October 9, 13, 15, 17, and 18. Although the position of the mysterious hand did not admit of the supposition that it belonged to the psychic, yet to be still surer, October 18 an elastic band of rubber was applied to her left hand so as to encircle each finger, thus permitting each one of the two next to her at every moment to distinguish which hand was held. The apparitions took place just the same, and they appeared again on October 17 and 18 (although with less intensity), under the rigorous control of Professors Richet and Schiaparelli, each of whom gave especial attention to his part, and has solemnly testified to that fact. Such conditions were quite difficult in this case, as always, as the psychic was constantly moving her hands; and instead of holding them on the table, in sight of all, she held them down on her knees.

CONCLUSIONS.

Thus all the marvellous phenomena which we had observed in complete or nearly complete darkness, as the violent moving of chairs with persons seated in them, contacts of hands, lights,

finger prints, etc., were finally obtained by us without losing sight of the psychic even for an instant. The sitting of October 6 absolutely proved, therefore, the correctness of our previous impressions in the dark. This sitting furnished the incontrovertible proof that in order to explain the phenomena in the dark, it is not necessary to suppose the existence of fraud on the part of the psychic, or an illusion on our part. It was the proof that those phenomena could result from the same causes which produce them while the psychic is visible, with a light bright enough to control her position and movements.

In making public this brief and incomplete account of our experiences, we must again express our convictions, namely: —

1. That, under the circumstances given, none of the manifestations obtained in a more or less intense light could have been produced by any artifice whatever..

2. That the same conviction can be affirmed in regard to the greater number of the phenomena taking place in darkness.

For the rest, we recognize that from a strictly scientific point of view our experiments still leave much to be desired. They were undertaken without the possibility of our knowing what we should need, and the instruments and different appliances which we were obliged to use had to be improvised. Nevertheless, that which we have seen and verified is sufficient in our eyes to prove that these phenomena are most worthy of scientific attention. We consider it our duty to express publicly our esteem for and our gratitude to Signor Ercole Chiaia, for having pursued for so many years, with such zeal and so much patience, in spite of opposition and protest, the development of the mediumistic faculties of this remarkable subject, and for calling the attention of the studios to her, having but one object in view, the triumph of an unpopular truth.

ALEXANDER AKSAKOW, Editor of *Psychische Studien*, Leipsic ;
Counsellor of State of the Emperor of Russia.

GIOVANNI SCHIAPARELLI, Director of the Astronomical Observatory, Milan.

CARL DU PREL, Doctor of Philosophy, Munich.

ANGELO BROFFERIO, Professor of Philosophy.

GIUSEPPE GEROSA, Professor of Physics in the Royal School of Agriculture, Portici.

G. B. ERMACORA, Doctor of Physics.

GIORGIO FINZI, Doctor of Physics.

At some of the sittings, of course others were present, as the text shows, among them Charles Richet, Professor of Medicine and editor of the *Revue Scientifique*, and Cesare Lombroso, Professor of Medicine, Turin.

Accounts of these same sittings have also been written by others of those present. An article published in *Psychische Studien*, by Dr. Du Prel, is particularly important, and a review of that will be given in the next number of this magazine.

A. M. COMEY.

(*To be continued.*)

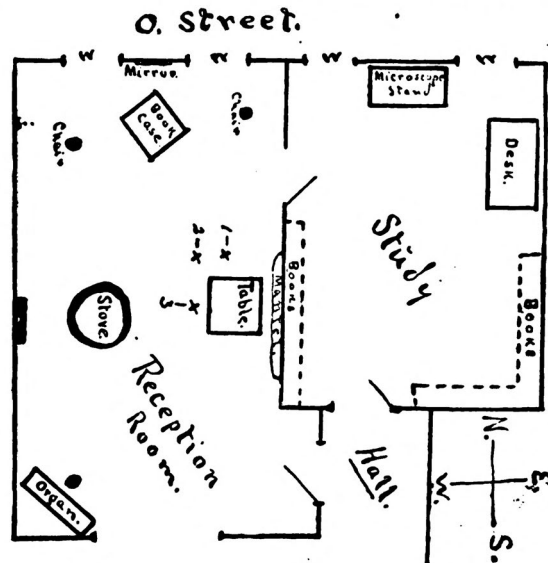
EXPERIMENTS WITH A PSYCHIC, AND OBSERVATIONS ON THE SAME.

FEB. 5, 1893, I had the pleasure of meeting Professor J. G. Leonard of Chicago. He came to my office at the instance of my friend Mr. Jay P. Knight of St. Joseph, Mo., who has for a number of years been the energetic and successful business manager of the St. Joseph *Herald*. He came, not merely for the purpose of forming my acquaintance, but in order to have me witness some of his extraordinary work in occultism and determine upon its genuineness, etc. I was much pleased with what he did, as well as the manner in which he did it, and in an off-hand way wrote my friend Mr. Knight a letter in which I mentioned the tests employed, and expressed my entire satisfaction with the performance. The letter was not intended for publication, it being my intention to follow it soon with a more detailed report. The letter appeared, however, in the *Herald* a few days later, and I deemed further notice of the interview superfluous. A copy of this particular issue of the *Herald*, in some unaccountable way, met the vigilant eye of the secretary and treasurer of the American Psychical Society, and he requested me to prepare an article on the subject, with which suggestion I comply with much pleasure. I desire to apologize at the beginning for the commonplace phraseology which will characterize it.

In the course of a running conversation with the professor, during the forenoon of Sunday, Feb. 5, 1893, the subjects of spiritualism, hypnotism, mind-reading, etc., were casually touched upon. I asked his opinion concerning the evidences of the existence of this interesting but comparatively little understood department of human research. He replied that he believed there is something in it all; but whether the explanation was contained in spiritualism, hypnotism, psychics, or occultism as such, he would not undertake to say; that he could not determine to his own satisfaction even, much less explain these phenomena to others. He was certain of a few things: he could do some rather wonderful things in that line himself; in fact, he believed himself able to repeat any test experiment performed by any of the renowned psychics, such as Bishop, Brown, and others; that he could duplicate many so-called spiritualistic performances, such as slate-writing, spirit-rapping, and some very beautiful clairvoyant and psychometric phenomena. I asked him how he did these things; had he no theory

at all to advance in explanation of what he did? He replied that it was as much a mystery to him as to others; that really he had no way of accounting for what he did, nor did he know whether he saw, felt, or just knew what to say or do in the course of a given test or experiment. I suggested that if he would oblige me with a "sample" of his power, we together might possibly formulate some explanation that would at least be satisfactory to us for the time being, even if it should not prove tenable to others.

He assented with alacrity. He began by saying in substance: "Now, you and Mrs. Leonhardt will remain in this room while I go into the other and close the door. As soon as you are satisfied that I can neither see nor hear you, please write upon a slip of paper your name; upon another some question relating to business; upon another the name of some person dead — or your mother's maiden name, for instance; upon another, one or more numbers. Do this while I am in the other room; fold the papers, place them in your pocket, and call me when you have finished." I did as he had directed, folded the little pieces of paper, which were exactly alike and folded alike, placed them in the lower right-hand pocket of my vest, and called him. He had been smoking a cigar and whistling some familiar tune with rather indifferent success, being doubtless a subject of *amusia*.



1. Mrs. Leonhardt. 2. Dr. Leonhardt. 3. Prof. Leonard.
Scale, $\frac{1}{4}$ in. to the foot.

Upon entering, he took a seat opposite me; a common oak centre table was at his right; Mrs. Leonhardt sat immediately to my left, all three of us occupying ordinary rattan rockers. "Now, then," said he, "you will observe that it will not be necessary for me to enter into the so-called trance state, become hypnotized, or lose consciousness; I can perform all I undertake without these things."

Looking me squarely in the face for a few seconds, — two or three, perhaps, — he said, "Now give me one of the papers, any one — the first one that comes handy." I reached into my pocket, mixed the papers again, although I had no idea of the order in which they had been put away, and handed him one. He took the paper, and, holding it to his forehead a moment, said, "This contains a question, a business question, something in regard to money. Well, it's gone; you will never see the color of that money again. It also contains a name, M. L. Trester." Unfolding the paper, I read, "Will I get my money back from the lien paid M. L. Trester?" Asking for another paper, I gave a second one to him as carelessly as the first. Holding it to his forehead again for a moment, he said: "This is your name, Dr. Leonhardt. There are two initials before it; they are not very plain to me; wait a moment, I shall name them; they are joined together — J. S. — is that correct?" It was. Of course, he might have seen my name written in this way somewhere, but it has not been my custom for years to write the initials of my Christian name except when signing legal instruments. Giving him the third paper, he subjected it to the same procedure as the others, but held it to his forehead a considerable length of time, after which he returned it and asked for another. I placed the returned paper in my left lower vest pocket, and gave him the remaining one from my right. "This," said he, "is a 'stunner'; it has a lot of numbers on it. Give me a piece of paper, and you put down the figures as I call them off." Paper being on the table at his right, he helped himself to a sheet, and began to name them in the order in which they had been written, and without a single error. The numbers were as follows: 1,234,684, 7,844, 0000, 604,001, 1,001,001. He now asked for the other paper. "This is your mother's maiden name; wait a bit." Passing the paper over his forehead a number of times, he passed it back to me, instructing me to hold it in my hand. I did so, keeping it well folded. "I shall not only write the name, but produce an exact imitation of your writing," said he. Taking a sheet of writing paper from the table, he nervously moved his hand, with a pencil in it, over the paper, very much as some writers behave when about to write a capital letter with a flourish. He made a few parallel marks, wrote a few unintelligible words composed

largely of consonants, acting much like one who has for a moment forgotten some familiar thing which he knows will "come to him" in a little while. In an incredibly short period of time he handed me the sheet of paper, having finished the name, and asked me to compare it with what I had written. The name was correct,—Wilhelmina Henrietta,—and he had produced a *fac-simile* of my writing.

1. *Wilhelmina Henrietta*

2. *Wilhelmina Henrietta*

1. Name as written by Dr. Leonhardt.

2. Name as written by Prof. Leonardi.

"You may think this is difficult," said he. "Now let me show you something that *is* difficult." I was to perforate a sheet of common writing paper with a pin, and he was to find the pinhole while securely blindfolded. I blindfolded him with eight thicknesses of a silk bandanna, stuck the pin through a remote corner of the paper, and placed the sheet so that the hole would not be near his edge of the table. I then conducted him to his chair, seated myself opposite him, as before, wife being at my immediate left, as before. Taking my right hand in his left, and the pin in his right, he began to deeply inhale and slowly exhale his breath, and tremulously to move his hand over the paper. He continued this for perhaps five minutes. A death-like pallor overspread his face; he trembled violently. Placing the fingers of my free hand over the pulse in his left wrist, I found it almost imperceptible. In a paroxysm of extreme agitation, he dropped his hand over the pin-hole, thrust the pin deep into the table, darted up out of his chair, and, dashing the hoodwink aside, exclaimed, "Did I do it?" He had; and so exactly had he struck the hole that the paper could be easily moved up and down the pin without the slightest resistance. His face now was deeply congested, and the veins on his forehead were quite prominent. Being impressed by the singular quality of this intense condition which he seemed able to induce at will, I asked if he would not repeat the experiment in my study, and allow me to make an observation with my sphygmograph, in order to see graphically what effect, if any, such an ordeal has on the heart and circulation. He consented, but informed me that it was a very exhausting experiment, and that I was the first doctor who had ever had this privilege.

I might, for the benefit of the non-medical reader, briefly describe the sphygmograph. As defined by Dr. Edgar Holden of New York, "The sphygmograph is an instrument that develops and records a knowledge of the condition of the heart as to vigor or irritability, character of impulse, duration of systole, ventricular contraction, condition of the valves, the relative tension in arteries and veins, the condition of the former as to contractility, passive dilation, degeneration, etc." The instrument I use constantly in my practice is the Dudgeon sphygmograph, because it is the most convenient and useful for all forms of clinical work of any in the whole sphygmograph family. The main features necessary to describe in this connection are the button that is placed over the artery, — the radial near the wrist usually, — a system of levers, a spring regulator of pressure, a strip of blackened paper, and the necessary clockwork to move this strip of paper under the needle, which is at the end of the system of levers. The clockwork is so regulated that it will move the smoked paper through the field in ten seconds; the spring pressure, that it will give any amount of pressure on the artery, from one to five troy ounces; the levers, so that the tracing on the paper shall be fifty times the amplitude of the impulse received by the button from the underlying artery. The tracing is finished by dipping it into a rapidly drying varnish, and is then called a sphygmogram.

The professor and I having repaired to the study, a sphygmogram was taken of his pulse in his then normal condition, and paper blackened for another to be taken at the critical moment of finding the pin-hole. He proceeded as before, found the hole, and I herewith present the tracings. I might say that in this test he held the pin in his left hand, for the reason that I took the sphygmogram from his right wrist; also that he was not in



Sphygmograms showing effect of psychical concentration.

physical contact with me this time, it being necessary for me to use both hands in manipulating the instrument; further, that my mind was not on the pin-hole, since I was intently engaged upon the tracing. The reader will notice that the first sphygmogram is normal as to amplitude, tension, speed, etc. The second one is not so; it is abnormally rapid, weak, irregular, peculiar as to volume, speed, tension, etc. The greatest apparent difference in the two tracings may be seen in the apices of the curves; the first showing considerable elasticity of the vessels, while the second is the pulse of arterial contraction or vaso-motor disturbance, such as might be obtained in overstimulation of the vaso-motor centre, which is located by Ludwig in the anterior-lateral nucleus of the medulla oblongata. The wavelets on the descending slope I do not think indicate the vibrations of the artery according to the observations of Landois; they seem to be too constant in their irregularity, compared curve by curve; neither are they, in my opinion, prolongations of the ventricular impulse, or percussion wave. I regard them rather as being complementary but indistinct contractions of the left ventricle of the heart.

A few considerations on the pulse might not be amiss. The number of pulse-beats per minute may vary considerably in different individuals, and in the same individual at different times, and still remain within the limits of apparent good health. Tall persons, other things being equal, have a slower pulse than short ones; the phlegmatic, indolent adult usually has a much slower pulse than his more active, energetic brother, although this rule, so obvious, has its exceptions. For instance, the normal pulse rate of Napoleon I., emperor of France, is said to have been about forty per minute, while that of the accomplished dramatic writer, Sir William Congreve, is said to have been about one hundred and twenty-eight per minute! Haller, the eminent Swiss physiologist, records instances of persons in good health with a pulse rate of only twenty-three per minute! The average normal pulse of an adult in the recumbent posture might be put at seventy-two in the male, and eighty in the female; this may be increased from ten to fifteen beats by simply assuming the erect position. Very slight causes may produce a perceptible increase in the pulse rate; after taking food it increases from five to ten beats; exposure to heat, muscular or mental activity, suffering any painful sensation or emotional disturbance that is not strictly depressant—all of these conditions accelerate the pulse. It is always increased during the forenoon between the hours of eight and eleven, and again during the afternoon between six and eight. It is lowered by profound emotional impressions of a depressing nature, such as grief, sorrow, etc; prolonged fasting diminishes its frequency twelve to sixteen

beats, and it is naturally lower during the night time and during mid-day.

I have made a number of experiments on myself with reference to the effect of different mental states on the pulse, and find that by deep, abstract thought I can lower my pulse from fifteen to twenty beats per minute; while by an intense application of short duration, such as is often necessary to overtake and capture a renegade or temporarily lost idea, my pulse would increase to a hundred. I will state that my normal pulse rate is sixty-six per minute in the recumbent position, and eighty when standing, and that so far as I know I have neither functional nor organic disease of the heart. I have also noticed, in connection with these observations, that my breathing was slow and irregular during the experiment in which the pulse was lowered, and that it was quick and shallow in the second experiment. I am inclined to think, therefore, that in either condition the normal ratio of cardiac to respiratory cycles is substantially maintained; i. e., about four pulsations to one complete respiration. I am not aware of any observations that have been made in this direction by either physiologists or psychologists, but believe that a series of such experiments could easily be made, be of interest, and possibly value, especially since but one case has been reported — by Tarchanoff — of a man who was able to *increase* the activity of his heart by a voluntary effort. There are a number of authenticated instances of voluntary diminution of the heart beats, however, one of the most remarkable being that of Professor E. F. Weber of Leipsic, who by suspending his respiration and at the same time forcibly contracting the walls of the chest, could reduce the number of his heart beats to from three to five per minute. Once he is said to have carried the experiment too far, and to have fallen into a syncope. Another case, that of Colonel Townshend, is also well known and authentic. He was able to arrest his breathing to such an extent that a mirror held before his mouth was not moistened; and to control his heart so completely that no pulse could be detected at the wrist, and even the cardiac impulse was rendered inappreciable. He died one afternoon, shortly after he had assumed this moribund state and remained in it upwards of half an hour. But I must desist in this direction, lest I be accused of merging a psychic report into a physiological essay.

The theory that occurred to me at the time I was enjoying the work of this sensitive, was that of telepathy; yet this, too, is but a name given a phenomenon, and is no explanation of it. Cerebral radiation is more than a working formula; it is at least a very plausible hypothesis. I have for years believed in the existence of an influence emanating from persons that was not

only felt but obeyed in many departments of human action. I shall not say a word on this part of the subject at this time. Those who are interested and have been seeking an explanation that is rational and entirely consistent with modern methods of thought and research should read Professor Edwin J. Houston's article reprinted in *THE PSYCHICAL REVIEW* for November, 1892, under the title "Cerebral Radiation." While I am in accord with the theory he advances, I am wholly unable to couch my thought in the terse, clear, and scientific form of which Professor Houston seems to be master.

At some future time I may, with the consent of the society, prepare a paper on the subject of "The Theory of Cerebral Radiation in its Application to various Psychological Phenomena."

J. S. LEONHARDT.

Lincoln, Neb.

PHENOMENA IN A HOME WITH NON- PROFESSIONAL PSYCHICS.

IN giving the readers of THE REVIEW the benefit of our private investigation of psychical science, which has been taking place in our home in Ohio for several months, I hesitate somewhat, from the fact that we are all young people and not experienced in what is called a regular spiritualistic *séance*. Doubtless you will all exclaim, "Oh! you are only in your infancy as regards this wonderful science," and will take no interest in our meagre results. None of us have ever been present at a *séance* of any description beyond our own family sitting-room, nor have we any desire to attend one. To us, and to one or two of our friends who have come from out of town to witness our manifestations, it is the only convincing result that can be attained, and through our own exertions we hope to learn beyond a doubt that our friends can communicate with us after death, *without the aid of a professional medium*.

There are more people possessed with the divine gift of transmitting messages from the intelligences around us, or from spirits, if they be such, than any one supposes. This has proved true in our own case. It is reasonable to assert that unless we put ourselves in a way to communicate with our departed friends, they surely cannot help us to know the truth. We have, each and every one of us in our circle, said again and again, whenever the subject has been brought up, and before we even knew that sometime we ourselves should be investigating it, that we would never believe in spiritualism, or whatever our scientific investigators shall prove it to be, until our friends should come to us *in our own home, day or night, in daylight or darkness, without the aid of a cabinet, curtains or drapery of any sort, musical instruments, or a professional medium*. From my early childhood, I have always looked upon persons who pretended to be able to see into the life beyond, and to perceive and converse with their departed friends, with utter *repulsion*. I no longer retain that feeling, for there is enough truth in it to take some people to extremes in their belief, and I now feel the greatest interest and sympathy for them, and regret that there

is so much chance for fraud in these investigations, which so seriously retards students from fathoming the truth.

Unless the readers of *THE REVIEW* particularly request it, I shall not go into the details of our first revelation, or of our advancement step by step, but shall merely state the fact that in our own family we have discovered three members who have the power to get communications through the table. One of them, a young lady, is at times able to write in a most peculiar way, which she could not do were she to try at other times; viz., she writes backwards and upside down to every one on her side of the table, but from the other side it can be read rapidly as it is written, and the unseen forces tell me they are on the other side of the table. We get, however, our most satisfactory messages from the simple tipping of the table. We have learned by frequent trials that this young lady, with the help of another lady member of the family, succeeds best at the table alone. The other two mediums are brothers. One is able to drive away the troublesome spirits who come often to fool us; and as he lives at a distance, we at one time had to give up our sittings until he came home to expel the intruders. The other medium has as yet been unable to gain any great satisfaction, but we feel that his powers will develop in time.

Our sittings take place in our family living room, the whole house lighted as it usually is. The two girls sit down to a heavy cherry table, with a square, polished top, and place their hands, palms down, opposite to each other upon the top; and they never sit more than a minute, often not so long, before the table begins to tip up and down, to indicate that some one is present. By saying the alphabet slowly, we spell out messages, names, and answers to any questions any of us in the room choose to ask. We do not sit silently, and to us it is not a time of sorrow but of happiness, to feel that our friends are with us, and they often say they are laughing, too, at something some of us say.

One night we had been talking through the table with a relative of the family who was a very prominent physician throughout Northern Ohio. I at last said, "Doctor, won't you tell us something more convincing, that we may know you are here talking to us?" There was a long silence; then he spelled out, "The dogs fought on the farm, but it did not cause a breach in the families." None of the younger people present understood the message; and seeing our mother laughing over at the other side of the room, we all referred the matter to her, and she explained a little family affair over their two dogs fighting so often, that none of us knew of before. We have asked the question several times, "Where do you stay?" The answer is always, "With our home friends wherever they are." They tell

us they cannot make us feel their touch or kisses, and that they cannot at all times talk to us even when they are with us and we are at the table. We never yet have been able to get a long message from a friend soon after death. They always tell us, "They are too weak." One friend, who has been dead (I choose to use that expression, even if we prove that the spirit or soul lives forever) a number of years, says she cannot talk so well alone, but prefers to talk through a spirit friend who also was a cousin of mine.

Upon one occasion an aunt of mine came to talk to me, and I said, "I want so much to know if it is truly you, auntie, that is trying to talk to me, and I want to ask you if you have ever seen the piece of embroidery you did on black satin, before your death, that was afterwards sent to your sister N." "No," the answer came, "I never saw it at her house, for I have never been there since I left my home on earth." I said, in surprise, "Why! how is that? I am sure she wants to feel that you are sometimes with her; do you not love her?" "Yes," she replied, "but I do not love her husband, and I do not go there." I then asked her if she would go there sometime just to please me. The table gave a queer little shake, that we have learned to know means they are going away for a few moments, but will return, and we sat and waited. Soon the table indicated that she had returned, and my aunt said, "I have been to N.'s house, but did not go in, for I saw her just going away." I said, "Was she alone?" She replied, "Yes." I then said, "Will you tell me what kind of a wrap she had on?" for the day was cool and damp. She answered, "Yes, she had on a brown cloak." I remarked to the party (there were only three of us that day) that I could not recall that my aunt had any such cloak, and none of us remembered ever seeing her wear such a garment. The next day I went to see her, and asked, in a careless way, if she had been at home all day the day before. She said, "Yes, I was at home alone all day, and I wondered why none of you came to see me." I own I was very much disappointed, but I did not reveal to her then what my object was in asking, for I was pledged to keep the whole matter a secret. During my stay at her house that afternoon, she chanced to remark, "Yesterday when I was up at the cemetery I was very much pleased to see what good care our lot has had." I at once exclaimed, "Why! auntie, you said you were at home all day yesterday." "Yes," she laughed, "I did say so, but I had forgotten. I was alone, so after dinner I walked up there." I then asked, "What kind of a wrap did you wear?" She looked at me curiously, and said: "Well, that is a queer question, for I resurrected a long brown cloak I had not worn for some years. It was so long I thought

I could keep from getting damp while I fixed the flowers." I could not remember any such cloak until she went and brought it to show to me.

In our conversations with these unseen intelligences (for they are intelligent), they have been very emphatic in refusing us the privilege of telling some of their nearest relatives. Only once or twice have we been trusted with a message to any one, and only once have we sent that message outside of the circle.

I will cite but one case more, wherein the reader will at least see that our supposed spirit was not a case of the action of one mortal mind over another. An uncle of mine came and said, "Tell —," his wife, "that she did perfectly right in that Jones matter." After the sitting was over, one of the party went to my uncle's wife and asked her about it. She has been in our circle a few times, but refuses to be convinced. She said she had had a money transaction that day with the man referred to, and explained it all, which she said no one else had had time to hear of, or would have felt the least interest in; and to say the least, she was astonished, but still unwilling to believe her message came from her husband. We are not willing, in our secret investigation, to have any one know the interest we take in the subject, and for social and business reasons I am obliged to withhold all names connected with it.

I hope that, by giving a little insight into our plan of study, some of the readers of THE REVIEW will put themselves in the way to accumulate evidence which will aid in solving the problems of the greatest of sciences. There are two men of our acquaintance, who are prominent business men of unquestionable veracity and thinkers upon all subjects pertaining to science, who have been allowed within our circle once or twice. We have asked them to aid us by giving the hardest tests they could invent, and they also pronounce the result most convincing, and say that there is a presence of other intelligences besides our own. This subject is an inexhaustible one; and should our experiences be of any help to the Psychical Society, I will gladly record them.

A.

EXPERIMENTS IN TELEPATHY BY THE LOS ANGELES BRANCH.

LOS ANGELES, CAL., July 20, 1893.

*To the Officers and Members of the Los Angeles
Branch of the American Psychical Society.*

IN pursuance of the plan indicated at the organic meeting of your society in March, 1893, the committee engaged in the work of investigating "mental phenomena" respectfully make the following report:—

This committee is composed of the following named members of the society: W. A. Spalding and Mrs. Spalding, Judge W. A. Cheney and Mrs. Cheney, Professor Kinza M. Hirai (of Japan), P. W. Dooner, Mrs. E. F. Huntley, Mrs. Knight, and Miss J. C. Williams—Mr. Spalding acting as chairman. The first regular meeting of the committee was held at the residence of Mr. Spalding in the month of April. The subject of the evening was the question of thought-transference, under which designation were intended to be included all phenomena that should in anywise indicate the operation of one mind upon another by means not generally recognized as practicable methods of communication.

Mr. Dooner, by request, explained his attitude upon the question, holding the view that the transference of mental impressions from one person to another is a scientific truth susceptible of demonstration and explainable by the laws of vibration. In support of his theory, Mr. Dooner introduced the following experiment: Half a dozen tapes were prepared so as to fasten tightly around the heads of as many persons (whom we will designate "sitters," for convenience) forming a circle around a centre table. The sensitive, or person most likely to receive impressions, judged by physical and mental constitution, was placed at one end of the table, and the other sitters were disposed at the sides and opposite end, as far away from the sensitive as practicable. Pieces of fine copper wire were then used to connect each sitter with the persons at his right and left, until a closed circuit was formed, including the sensitive. The wires so used, (excepting those connecting the sensitive with her immediate neighbors, which were somewhat longer), were each about two feet in length, having each end of every wire coiled upon itself

so as to form a disc about the size of a five-cent piece. The connection was made by bending the disc at right angles with the wire, and passing the former between the head and the tape so that the disc should rest firmly against the temple.

The circle or circuit being prepared in this manner, the sensitive was blindfolded by having a handkerchief tied across the eyes, after which a pile of books about eighteen inches in height was placed upon the table about two feet distant from, and in front of, the sensitive, so that the opposite side of the pile and the portion of the table thereby concealed from the sensitive (if she had been able to see) were in plain view of all the other sitters.

Cards upon which simple geometrical figures in heavy lines were drawn in red ink, were then successively produced from Mr. Dooner's pockets and laid upon the table behind the pile of books, relatively to the sensitive, but in full view of the other sitters. These latter were requested to concentrate all their attention upon the whole figure as soon as it should be exposed.

First experiment, Mrs. W. A. Cheney, sensitive:—A simple cross was placed upon the table as above indicated, before the following named sitters: Judge W. A. Cheney, W. A. Spalding, Mrs. Spalding, Mrs. Knight, and Professor Hirai, and the sensitive was requested to describe any impression that she should receive. Half a minute had not quite elapsed when she said, "I see a cross—a plain cross." To the question, "What is the color of the object?" she answered, "It seems dark, or black." The cross was then removed and a circle of the diameter of two inches was substituted. After a few moments of waiting, the sensitive referred to a confusion of objects without distinct or permanent outline; but upon the suggestion that the sitters should concentrate upon the object exposed, the experiment became more satisfactory. After the lapse of some three minutes the sensitive said she saw a black circle having a dot at one side of the centre. She insisted that the dot was clearly perceptible within the circle. This circle, like the cross, was drawn in red ink which spread or blotted to some extent at one point, which is the only explanation that could be offered of the presence of the "dot."

There were further experiments at this meeting in which one or more, but less than all the sitters named, sought to convey the impression to the sensitive by contracting the circuit, all of which were attended with more or less success.

The next meeting was held in May at the residence of Mr. Spalding, Mrs. Spalding acting as sensitive. The arrangements were all similar to those adopted at the former meeting. There were sitting, Judge W. A. Cheney, Mrs. Cheney, Mrs. E. F.

Huntley, Miss J. C. Williams, Professor Hirai, and Mr. Dooner.

A card upon which a rhombus, a diamond-shaped figure, was drawn in red ink, was exposed in the usual way. Only a few seconds of the exposure had elapsed before the sensitive exclaimed, "I see a large black diamond." The diamond was then removed, and the "star" figure formed by two intersecting triangles was substituted. After some minutes' uncertainty the sensitive said she saw a shifting figure that seemed like a star.

Some further experiments were tried, in which single individuals were connected with the sensitive. One of these, in which Judge Cheney transmitted to the sensitive the picture of a hand, was very satisfactory. But the best results in this line of investigation were obtained by increasing the number of sitters to the maximum, with a figure representing the minimum of complexity in structure.

In the foregoing account we have given only the more conclusive of the results that were obtained, but there were other instances in which an eye, an arrow, Saturn with his belts, a triangle, etc., were indicated by the sensitives with sufficient particularity to exclude the inference of mere chance or coincidence. We estimate that with a company of six persons, including the sensitive, seventy-five per centum, at least, of the experiments conducted by this committee yielded results practically conclusive of the truth of the principle under examination.

The committee proposes a similar line of investigation in the near future, but by a radically different medium of conduction which has been suggested by Judge W. A. Cheney. The results that may be obtained will find place in a future report.

Respectfully,

WM. A. CHENEY, *President.*

ANNIE E. CHENEY.

P. W. DOONER.

E. F. HUNTLEY.

Of the Committee.

ADELAIDE R. HASSE, *Secretary.*

SUGGESTIONS TO INVESTIGATORS.

I AM an investigator myself, and one of not very long standing; therefore I do not expect and do not wish whatever I may say to be accepted as in any sense authoritative. For the most part my suggestions will be such as are evolved by the use of common sense. A few are lessons which my own experience, although short, has taught me.

First of all, the tyro in psychical investigation should disabuse himself of the thought that mediums demand that one believe in order to see the tests; that supremely ridiculous position is taken only by religionists. The believers in spiritism do not consider it necessary that you believe anything, either for their peace of mind or for your own salvation. There is no such incentive for them to propagate their opinions as exists in the case of faiths which are by their devotees held to be an essential prerequisite to salvation. The spiritualist does not care a continental whether you ever think as he does or not, except as every man desires to have his neighbor see things as he does. The medium does not feel that there is any especial reason why he should bother about your ideas, and in general you will find that he is best satisfied if you preserve a discreet silence on that point. It will be a pretty good evidence of fraud if you find any medium who inquires whether you believe in spirit manifestations, and refuses you a sitting if your reply is "No." I have met one medium who claims to require a belief in God as a condition precedent; but he is regarded as a queer bird by his kind. Certainly, though, in view of the requirements of all churches and even some scientific bodies, this may not be considered too unreasonable on the part of a man who really thinks his gifts from heaven and therefore sacred.

Even as you will not be asked whether you are Christian, Mohammedan, Buddhist, or infidel, whether you know or think anything about spirit-return, in the same way you will not be expected to express ideas which are not agreeable and may be insulting to the medium. He must often feel like putting up a sign similar to the one in a frontier dance hall: "Don't shoot the pianist; he's doing the best he can." It is not claimed, even by its blindest devotees, that the methods of psychical phenomena are sufficiently developed to insure an equal performance at all times and with all persons. You will not be in the work very

long before you will find that very many credulous persons come repeatedly before obtaining anything of test value, while often the disbeliever is struck dumb at once by the most astounding evidence of the folly of his preconception. You can afford to be polite and patient, virtues without which it is useless to expect scientific research into occult things to prove effectual.

The most that will be asked of you will be to encourage the operator and the alleged spirit when you recognize him, by welcoming him, not more effusively than you would in life, but in much the same manner. It is asserted that your friends have as thin skins—metaphorically, of course—as they had in earthly life. This would seem reasonable, if there is anything in it at all; and if the tests given raise even a presumption that the friend is communicating, you are certainly justified in being yourself to him. You will not help your investigation by assuming an unnecessarily incredulous air. Indeed, it is those who are beginning to believe and tremble who commonly take to such tactics. In fact, it is sometimes desirable to pretend to recognize when you do not, if you suspect that you are being played with. I have used this system several times, sometimes with the result of leading the psychic into the trap, and once or twice with the laugh on me before we were done with it.

Especially in dark *séances*, where the spirit of your departed friend is supposed to appear and speak in his own proper person, is the injunction addressed to you to “speak to your friend.” You will not gain anything by merely grunting from your seat that you don’t recognize the face, etc. You should not care what other persons in the room think of you and of your powers of credulity. Apply the same tests you would in life, so far as possible, remembering that, if the apparition is genuine, your friend has been to infinite trouble and pains to come to you, and is likely to be bitterly disappointed if met by cold indifference. If it is not genuine, a fuller and closer examination is far more likely to disclose that fact than is a dismissal, which leaves nothing proved. A recognition almost effusive in character makes the false heir incautiously betray himself; and so you will find it if trickery is being practised on you. Seek for a sign!

As an investigator attached to the American Psychical Society, it is not your business to play the part of a detective nor to expose a swindler. You will do far better to leave that to others. The society is looking for truth, not fiction; for facts, not fraud. It is, of course, your part to avoid being deceived and to take all possible precautions to prevent being tricked. To have any weight, your investigations must preclude the likelihood of your being played upon. But you are not required, nor indeed desired, to act as censor or public prosecutor of fraudulent

mediums. The society wishes to obtain the utmost facilities for investigation, and does not regard the personality of the medium as of any importance whatsoever.

The mediums, knowing that they must submit to unusual conditions in appearing before our committee, feel somewhat nervous and fearful of failure. This is rendered worse by any suspicion that failure will be construed into evidence of fraud, if indeed they consent to do anything at all. The usefulness of many a society has been impaired by thus estranging the persons who can most assist the investigator, and who are most essential to the successful prosecution of the investigation. It is entirely proper for you to explain any fraudulent practices which you may have found, but you will act wisely to refuse the name of the medium.

Even as it is not thought fitting that the members of the society blast the reputation of a medium, it is also unwilling to be made the means of advertising the virtues and powers of a medium. However remarkable may be your experiences, they are none the less remarkable because you withhold the medium's name, and they read much less like patent medicine advertisements.

Experiment! To be sure, if you do succeed in developing powers yourself, people will say, "Just another fraud!" But what of that? If you have any fear of it, you have no business in this scientific work or age. Science asks for truth, and cares not what the world may think. You must already think that it is true that spirits do return, if you fear to test your own mediumistic capacity. Your experiments will be more valuable as evidence to the society, and through it to the world, than many times as many with experienced psychics. That should be enough for you, and should urge you on to repeated trials. And about your own experiments you can be sure; you at least will have proof incontrovertible, though not so convincing perhaps to others. Do not forget that it is not the assertion of the psychics that their powers are marvellous and inimitable upon which we must rest, but the fact that similar phases of psychic power can be developed by very many persons—indeed, by a large percentage of the people—all by the simple process of sitting. From the experiments of its members the society really expects the most important results of all.

It is facts that we are after just now, not theories. Do not try too hard to explain, and especially do not refuse to believe because you cannot explain. If all the phenomena of modern spiritualism could be explained off-hand by ordinary means and on purely physical hypotheses, this society would never have been formed, and investigation would not have been required.

Do not fancy that in order to seem wise it is necessary for you to have always at hand some explanation other than the spiritistic for the phenomena. You are not bound to explain the causes of what you see, except to assure yourself that there is no possibility of mere jugglery of a physical character. Much less are you under obligations to exhaust all the possibilities of all hypotheses other than that of the activity of disembodied spirits before yielding allegiance to that. Your views of these matters should result naturally from what you see and hear, if you are to have opinions at all, and you should not do your mentality the injustice of hunting some cranny into which to escape from conclusions entirely conformable with the evidence at hand.

Better is it, of course, if you can hold your opinion in suspense for a long time yet. Such is the proper attitude of a seeker after undiscovered truths. Do not think out a theory until you know something about the subject, and when the first object of investigation has been accomplished, the discovery of facts and their wherefore, it then only remains to develop the corollaries of the main proposition.

But at present in psychical science we are but seekers for facts. This is the position of most of those who deign to take any interest whatever. To be sure there are those who have pursued their individual investigations to a point which in their judgment justifies certain very definite conclusions which, so far as we can yet know, may be right or not. But the mass of intelligent people are to-day in the attitude either of absolute unbelievers in the fact of psychic phenomena, or in any case absolutely without a solution of the means by which such are accomplished.

Therefore, we have first to discover what really happens that requires explanation, and to give the facts duly authenticated to the thinkers of the age. Then we should endeavor by experiment to superinduce these phases among persons of our own immediate acquaintance, so that the phenomena may be studied during development. If the sunlight can shine in upon it all, and if psychic powers can be made common and well known, it will not be long before the phenomena will explain themselves to the satisfaction of all.

MILES MENANDER DAWSON.

EDITORIAL.

MENTAL CAUSATION.

"Ideal Suggestion through Mental Photography,"¹ a book of which Mr. Henry Wood, already favorably known, is the author, is another contribution to the reaction against materialism. Man *is* a soul, not *has* a soul. His body is a temporary material correspondence; a set of instruments for his convenience on the plane of sense. Through their use, the real man — who can never be seen or heard — translates and manifests himself outwardly. . . . Matter is only a form of expression, and has no character or basis of its own. It is 'clay in the hands of the potter,' never an actor but only acted upon. It appears, disappears, and reappears only to outwardly articulate different qualities and grades of life. Life, or spirit, is the only intrinsic reality. The physical man is merely the outpicturing of his inner and intrinsic counterpart. The body is a grand composite photograph of previous thinking and mental states." The spirit organizes the body originally, and continually exercises an influence over it which moulds it into correspondence with thought.

The progress of mankind demands a recognition of the power of thought or of "mental causation." This force has two applications of great importance; first, in the cure of disease, and second, in elevating the characters of individuals and uplifting our race.

Thought is the great therapeutic agent. Bodily harmony or inharmony is "the natural and direct result of the past prevailing quality of thought," therefore "the only normal and scientific healing agency is resident in mentality." The prevailing medical philosophy and the system of treatment with drugs "*would* be reasonable, provided that the soul (man) were a function of the body," but as this is not the case, the regular practice is "an antiquated experimental system of modifying and dealing with results." "It lacks an exact and scientific basis."

With the exception of those biased in favor of materialistic thought, most persons will affirm their acceptance of two ideas which are consistent with the claims made by Mr. Wood; first, that there is a non-material and immortal part of man, and, second, that this part and the material and mortal portion affect each other. There are data which warrant us in going still

¹ Lee & Shepard, Boston, 163 pp. \$1.25.

farther, and affirming that some of the effects produced by the mind upon the body are very remarkable. Medical authorities, according to Dr. William B. Carpenter, cite cases where the only legitimate inference seems to be that certain strong emotional states upon the part of a mother are capable of making her milk positively poisonous to her babe. The same authority mentions the following case in his "Mental Physiology":—

"A lady who was watching her little child at play, saw a heavy window-sash fall upon its hand, cutting off three of the fingers; and she was so overcome by fright and distress, as to be unable to render it any assistance. A surgeon was speedily obtained, who, having dressed the wounds, turned himself to the mother, whom he found seated, moaning, and complaining of pain in her hand. On examination, three fingers, corresponding to those injured in the child, were discovered to be swollen and inflamed, although they had ailed nothing prior to the accident."

"That the *confident expectation of a cure* is the most potent means of bringing it about, doing that which no medical treatment can accomplish, may be affirmed," says the same author, "as the generalized result of experiences of the most varied kind, extending through a long series of ages. . . . There is no more satisfactory example of the influence of expectant attention, 'pure and simple,' than is afforded by the charming away of warts; for the disappearance of these excrescences has so frequently occurred within the experience of trustworthy observers, in close connection with this psychical treatment, that we must disbelieve in the efficacy of any remedies, if we do not accept this." As a case in point Dr. Carpenter quotes as follows from Dr. Tuke:—

"A surgeon informs me that some years ago his daughter had about a dozen warts on her hands. They had been there about eighteen months, and her father had applied caustic and other remedies without success. One day a gentleman called, and, in shaking hands with Miss C., remarked upon her disfigured hand. He asked her how many she had; she replied that she did not know, but thought about a dozen. 'Count them, will you?' said the caller; and taking out a piece of paper, he solemnly took down her counting, remarking, 'You will not be troubled with your warts after next Sunday.' By the day named the warts disappeared, and did not return."

What I have found in Dr. Carpenter's book illustrating the influence of the mind over the body has surprised me. It makes me suspect that the claims of the more cautious amongst the mental healers could be proved from the cases recorded by the "regular" medical practitioners. Again, is it not surprising that the physicians themselves have not turned such facts to account

by devising systematic means for producing those mental states which promise to effect cures? Doubtless their materialistic philosophy, noted by Mr. Wood, has had much to do with their neglect of such a potent agent. The cases cited show conclusively that thought is a force and that the mind does exercise a remarkable influence over the body. How otherwise can we explain the disappearance of the warts after material remedies had failed? And if thought be a force, it is very reasonable to believe, in view of the foregoing, that the right kind of thinking may produce many beneficial effects not yet acknowledged or even understood by the medical fraternity. It becomes very probable, then, as Mr. Wood asserts, that thought discipline and control and earnest desire and aspiration can lead to "an influx of life, virtue, health, and happiness from the Inexhaustible Fountain," such as the materialistic physician cannot explain by his philosophy.

In describing the process of healing, Mr. Wood says: "The healer, through cultivation and discipline, develops such a power of concentration that his thought-waves have great clearness and intensity. It is not a hypnotic projection of will power, but transcendent clear-sightedness. It draws a beautiful, true picture, suggests an ideal which the patient cordially accepts and adopts." It is not, then, in the opinion of this author, that what might technically be called a special healing force proceeds from the healer to the patient, but that the correct thinking of the former, concentrated upon the patient, silently and even at a distance determines his thinking, reveals to him truth, and that when he possesses this, the supremacy of soul over body is such that health is restored, because it is the condition that corresponds to true thought.

Mr. Wood would have increased the helpfulness of his book to a large class of people had he added fifty or seventy-five pages containing first, a citation of cases similar to those quoted above from Dr. Carpenter, and second, a detailed statement of a number of carefully authenticated cases of mental healing. It may be alleged that even eminent physicians do not agree in their diagnoses, and that this fact makes it difficult to obtain testimony of the highest value in such cases. Nevertheless, whatever obstacles tend to diminish the value of testimony, whether lay or professional, in alleged cases of mental healing, must and do confront the medical profession in precisely the same way when it seeks to determine the value of a given remedy or method of treatment. What is customary and practicable in the one case should be sufficient in the other. Again, however anti-materialistic and favorable to the claims of mental healing a person may be, he still has much to gain from the

accumulation of evidence proposed. For however firm one's reliance upon mental causation, it certainly has limits, which, if not absolute, are yet dependent upon the degree of unfoldment of individuals. It must often happen, then, that testimony to the effect that particular results have been obtained through mental causation will so stimulate the faith of other believers as to augment their power.

On the other hand, there are many people whose faith in mental causation, at least in its application to therapeutics, can only be aroused by the citation of many authentic cases of healing which are not explained by an appeal to any other agency. Turn which way we will, then, we shall find that the accumulating, sifting, and publishing of cures through mental causation opens a line of work of importance both to mental healers and to the general public, which, in the end, if the claims of the former can be verified, will turn to them for release from the ills to which flesh is heir. There is no reason in the nature of things why we should continue to rely upon drugs if it be true that thought-force is more effective and in every way more desirable; but the burden of proof here, as always, rests upon the innovators.

In his chapter upon "Ideal Suggestion" Mr. Wood says: "The formulation of the system of ideal suggestion is the outcome of a study of the laws and manifestations of mental activity. Law is universal; its understanding is the acme of scientific attainment, and its utilization is the highest prerogative of man. Its clear and harmonious lines are as distinctly traceable, in their onward course, through the moral and spiritual realm, as in that which pertains to matter." It is through law that the highest in man is to become supreme. Truth makes man free. The mission of the principles underlying ideal suggestion "is the development of the spiritual ego . . . to bring to birth the spiritual consciousness; to free man from the dominion of sin and selfishness, and to enthrone the real divine self—God's image—and put him in possession of his divine heritage." The keynote to the author's thought is, "As a man thinketh in his heart, so is he."

The process through which man is to be regenerated is literally a photographic one. Such suggestions as "God is here," "Divine love fills me," "I am part of a great whole," etc., are printed in large type, each upon a page by itself and these serve as objects which are to be photographed upon the mind so strongly that they become an ineradicable and unforgettable part of the mental furniture. Through the laws of association the circumstances of life suggest the ideals so impressed, and thus give a greater weight than would otherwise exist to those universal

truths and altruistic conceptions which make for the betterment of the race. Many will perceive the soundness of Mr. Wood's teaching when applied to the formation of character, who are not prepared to concede his claims with respect to mental healing.

This book is well worth the careful study of every one who has learned that very much of the truth which comes to the world is not refracted through the prism of traditionalism.

BORDERLAND.

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